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DEPARTMENT OF THE ARMY FIELD MANUAL

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July 68

See F.M. 29-20, 26 July 68
29-30, 26 July 68

AIRCRAFT MAINTENANCE SERVICES AND UNITS IN THE FIELD ARMY

HEADQUARTERS, DEPARTMENT OF THE ARMY

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DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *1 June 1965*

AIRCRAFT MAINTENANCE SERVICES AND UNITS IN THE FIELD ARMY

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CHAPTER I

INTRODUCTION

1. Purpose and Scope

a. This manual is a guide for personnel assigned to aircraft maintenance and supply units in the field army and for commanders, staff officers, and other personnel concerned with combat service support of Army aviation units.

b. This manual provides basic information pertaining to Army aircraft maintenance and supply support in the field. Description of units covers their mission, organization, assignment, capabilities, functions, limitations, employment, and communications.

c. This manual is applicable to both nuclear and nonnuclear warfare.

d. Users of this manual are encouraged to submit recommended changes or comments to improve the text. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded to the Commanding Officer, U.S. Army Combat Developments Command Transportation Agency, Fort Eustis, Va. 23604.

2. Definitions

The following terms apply only to the doctrine discussed in this text:

Armywide services—Those services that are relatively immobile or whose use is unpredictable, varying with requirements imposed by terrain, combat intensity, or command decision. (See FM 54–3 for a detailed discussion of armywide services.)

Combat service support—As used in this manual, combat service support refers to maintenance and supply for aircraft, avionics, and aerial armament components and end items of equipment.

Composite multifunctional unit—A unit whose title and composition do not identify it with a single technical or administrative service and that performs more than one major function; for example, the supply and service battalion, direct support group.

Functionalization—The manner of organization by which all personnel performing the same type of function (for example, supply) are placed in the same organization. The resulting organization may be wholly identifiable with one technical (or administrative) service or may be a composite of two or more.

Tailoring—The adaptation of a flexible organization to meet requirements of a specific operational mission.

3. Combat Service Support for Army Aircraft

a. Direct Support.

(1) Direct support for nondivisional aircraft in the field army basically parallels the support provided for division aircraft by the aircraft maintenance company of the division support command. (See FM 29–30 for a detailed discussion of aircraft maintenance and supply support in the division.) As in the division support command, a transportation aircraft direct support company organic to a direct support maintenance battalion provides both aircraft maintenance and supply direct

support. The support structure is discussed in chapter 2.

(2) Direct support aircraft maintenance and supply support provides the following services for supported aviation units:

(*a*) Direct support level repairs for Army aircraft and for avionics and aerial armament. (See FM 29–22 for a detailed discussion of avionics direct support.)

(*b*) As required, backup organizational level maintenance for Army aircraft.

(*c*) Direct exchange of selected parts and components.

(*d*) Maintenance float of aircraft, avionics equipment, and aerial armament.

(*e*) Technical assistance as required.

(*f*) Field recovery and evacuation of nonflyable aircraft.

(*g*) Technical inspection of aircraft and related equipment as requested or directed.

b. General Support.

(1) At the general support level, aircraft supply is removed from maintenance channels and placed in functionalized supply units that provide repair parts support to aircraft direct support units and to aircraft maintenance general support companies. Repair of items by the transportation aircraft maintenance general support company is normally for return to stock. The support structure is discussed in chapter 2.

(2) General support aircraft maintenance and supply provides the following services:

(*a*) General support level maintenance for Army aircraft and aerial armament. (Avionics repair is generally limited to testing and subsequent removal and replacement of items; avionics items that require extensive general support repair are evacuated to a general support light equipment maintenance company of the general support maintenance battalion.)

(*b*) Backup direct support level aircraft maintenance for direct support aircraft maintenance companies in the direct support group and in the division support command.

(*c*) Aircraft supply support for direct support activities.

(*d*) In the army service area, aircraft supply support for aircraft maintenance general support companies.

(*e*) Evacuation of unserviceable equipment from forward units to the army service area or to the communications zone.

(*f*) Maintenance of a portion of field army reserve stock of avionics equipment and aerial weapons.

(*g*) Technical assistance to direct support units.

4. Significant Features of Aircraft Support Concepts

a. Flexibility of Maintenance Organization. The concept for maintenance support of aircraft in the field army permits tailoring of the organization to meet the specific support requirement. The aircraft direct support company and the aircraft maintenance general support company may perform their respective missions in either the corps area or the army service area without modification. However, if the mission requires an increased capability, either type of company may be augmented with appropriate operational sections. These companies may be attached to a controlling headquarters in varying combinations as required by workloads, aircraft densities, the tactical mission, or environmental factors. When required, direct support platoons of the aircraft direct support company may be detached from the company and deployed to support specific units or operations that require less than company-size support.

b. On-Site Maintenance. Within feasibility limits, on-site maintenance is practiced to the maximum extent. The aircraft direct support company provides this maintenance service through its direct support platoons. Each di-

rect support platoon contains personnel, tools, and selected repair parts with which to complete repairs on site as permitted by the tactical situation, available time, and environmental factors. Aircraft that cannot be repaired on site are flown or evacuated to the aircraft direct support company base of operations or to the aircraft maintenance general support company as appropriate to the extent of repair required.

CHAPTER 2

COMMAND AND STAFF ORGANIZATION

5. General

a. To fully understand the organizational structure for support of aircraft in the field army, it is necessary to have a general knowledge of the organization of the field army support command and of the relationship between aircraft maintenance and supply units and their supported and supporting organizations. The field army support command as discussed in this manual is a type organization, which may be tailored to meet the requirements of a particular field army or of various smaller forces employed in specific environments and/or types of warfare.

b. Commanders at all echelons have command responsibility for all subordinate echelons; the commander exercises operational control through command channels. Operations are conducted by subordinate commands in response to missions assigned by the next higher command. The staff at each major subordinate command echelon includes aircraft maintenance and supply specialists who are responsible for planning, coordination, and staff supervision of aircraft service support activities within their respective areas of interest.

6. Field Army Support Command

a. The army commander exercises his responsibility for combat service support of Army aircraft through the commander of the field army support command (FASCOM) (fig. 1), who commands and controls all assigned and attached combat service support units. The commander and staff of the field army support command, operating within plans, concepts, policies, directives, and guidance provided by the army commander, develop detailed implementing plans, policies, and directives for combat service support to the field army. FM 54–3 contains a detailed discussion of the organization and operations of the field army support command.

b. Staff organization of the field army support command headquarters includes an assistant chief of staff for maintenance and an assistant chief of staff for supply, whose respective staff responsibilities include those of maintenance and supply support for aircraft in the field army. Officer and enlisted aircraft maintenance and materiel specialists are assigned to the maintenance and supply staff sections respectively. These specialists advise and assist in planning, coordinating, and conducting staff section activities pertaining to aircraft support.

(1) *Aircraft maintenance officer.* Under supervision of the assistant chief of staff for maintenance, the aircraft maintenance officer performs the following functions:

(*a*) Within prescribed policies, guidelines, and procedures, establishes priorities of repair.

(*b*) Prepares plans and recommendations for allocation of aircraft maintenance support, assignment of support missions, deployment of support units, and balancing of workloads between support brigades.

(*c*) Recommends and develops policies, procedures, and operational instructions for issuance to subordinate brigades and to the field army support command inventory control center (para 33*a*) relative to aircraft maintenance activities.

(*d*) As directed, assists in inspection and staff supervision of subordinate units.

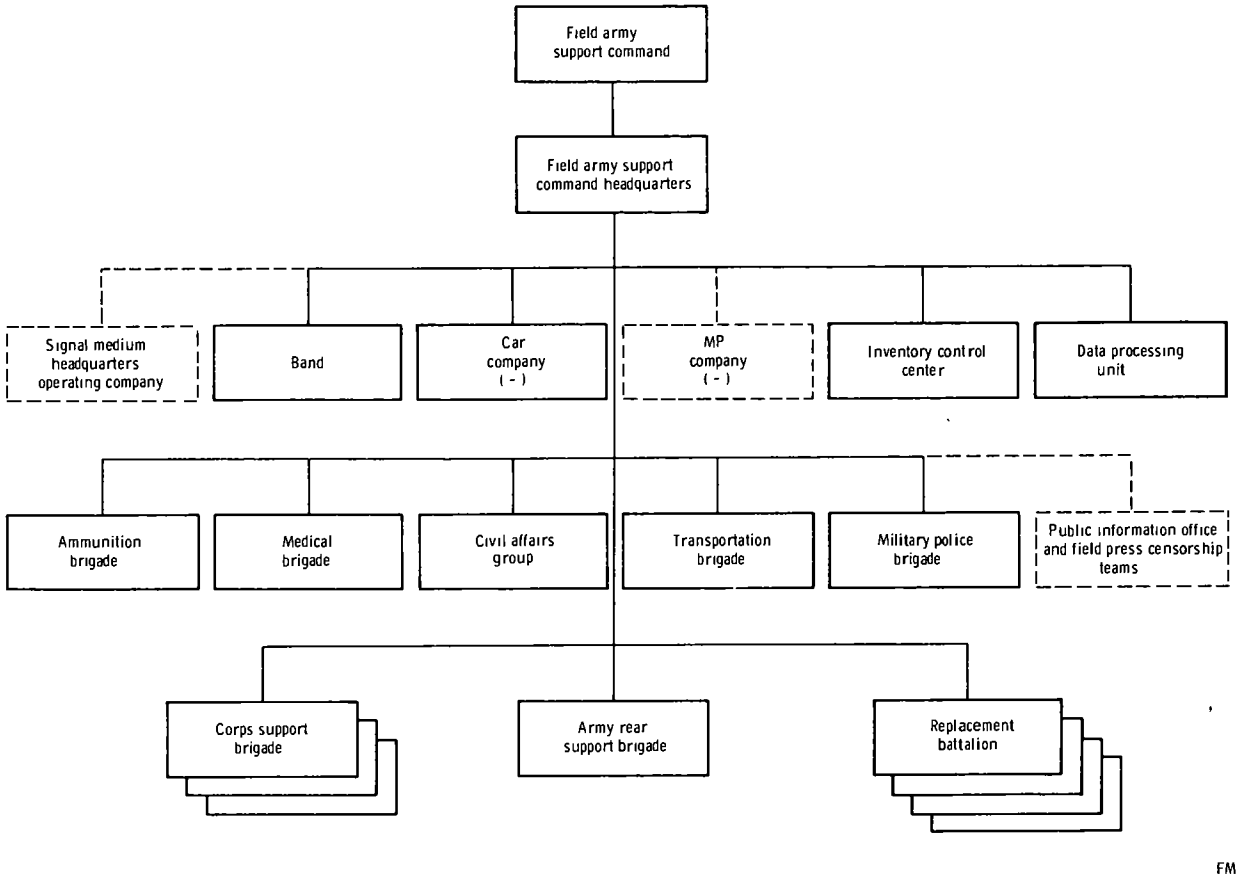

Figure 1. Field army support command.

(*e*) Receives, analyzes, and processes aircraft maintenance data as prescribed in TM 38–750 and TM 38–750–1 and recommends procedural changes or other actions based on the status of maintenance and material readiness as reflected in maintenance data feeder reports submitted by subordinate units.

(*f*) Effects coordination of aircraft maintenance activities with the supporting logistical command, the inventory control center, and the supply and other general staff sections of support command headquarters.

(2) *Aircraft materiel officer.* Under supervision of the assistant chief of staff for supply, the aircraft materiel officer performs the following functions:

(*a*) Determines aircraft repair parts requirements and (in coordination with avionics and armament specialists) avionics and aerial armament repair parts requirements for supported aircraft.

(*b*) Within field army policies, plans and recommends concerning acquisition, receipt, storage, documentation, and distribution of aircraft and aircraft supplies.

(*c*) Within established policies and in coordination with the general staff section for maintenance, recommends the allocation of maintenance float aircraft and other controlled or critical air items and supplies within the field army.

(*d*) Recommends and develops policies, procedures, and operational instruc-

tions for issuance to subordinate brigades and to the support command inventory control center relative to aircraft supply activities.

(*e*) Effects coordination of supply activities with the supporting logistical command, the inventory control center, and the maintenance and other staff sections of support command headquarters.

7. Support Brigade

a. The support brigade is a major subordinate command of the field army support command. The brigade headquarters provides command, control, and direction of combat service support activities performed by attached direct and general support groups. The field army support command contains four support brigades allocated on the basis of one support brigade per supported corps plus one per army service area (fig. 1).

b. When a corps is employed in an independent or semi-independent operation, the support brigade headquarters provides the command organization for a corps support command. This organization functions in relation to the independent task force in the same manner as the field army support command functions in relation to the field army. (See FM 54–4 for a detailed discussion of support brigade operations.)

c. Staff organization for the support brigade headquarters, like that of the field army support command (para 6), provides an assistant chief of staff for maintenance and an assistant chief of staff for supply. As in the field army support command, officer and enlisted aircraft maintenance and materiel specialists advise and assist in planning, coordinating, and conducting staff actions relative to support of Army aircraft within the support brigade area. Staff planning and control functions of the support brigade are conducted within overall plans, concepts, policies, and guidance provided by the field army support command.

(1) Under supervision of the assistant chief of staff for maintenance, the aircraft maintenance specialist performs the following functions:

(*a*) Within prescribed policies, guidelines, and procedures, establishes priorities of repair.

(*b*) Prepares plans and recommendations for the allocation of aircraft maintenance support, assignment of support missions, deployment of support units, and balancing of workloads for direct and general support groups within the brigade.

(*c*) Coordinates with avionics and armament specialists in the staff section for maintenance in matters pertaining to maintenance of avionics and aerial armament.

(*d*) In coordination with the staff section for supply and in conformance with policies and directives of the field army support command and the inventory control center, recommends and develops aircraft maintenance policies, procedures, and operational instructions for issuance to subordinate direct support and general support groups.

(*e*) Effects coordination with supported units and, as directed, assists in inspections and staff supervision of subordinate units.

(*f*) Receives, analyzes, and processes aircraft maintenance data as prescribed in TM 38–750 and TM 38–750–1, and recommends procedural changes or other actions based on the status of maintenance and material readiness as reflected in maintenance data feeder reports submitted by subordinate units.

(*g*) Within maintenance policies and directives established by the field army support command and the inventory control center and in coordination with the staff section for supply, recommends and develops implementing aircraft maintenance policies, procedures, and operational instructions for issuance to subordi-

nate direct support and general support groups.

(2) Under supervision of the assistant chief of staff for supply, the aircraft supply specialist performs the following functions:

(*a*) Determines aircraft repair parts requirements and (in coordination with avionics and armament specialists) avionics and aerial armament repair parts requirements for aircraft supported by the brigade.

(*b*) Within support command policies, plans and recommends concerning the acquisition, receipt, storage, documentation, and distribution of aircraft and aircraft supplies.

(*c*) Within support command policies and established priorities and in coordination with the staff section for maintenance, recommends the allocation and approval for issue of maintenance float aircraft and other controlled or critical air items and supplies within the support brigade. (Until automatic data processing equipment becomes available, supply management at support brigade level is exercised only for controlled or critical items.)

(*d*) Within support command and inventory control center policies and directives and in coordination with the staff section for maintenance, recommends and develops aircraft supply implementing policies, procedures, and operational instructions for issuance to subordinate direct support and general support groups.

8. Direct Support Group

a. The direct support group is a major subordinate unit of the support brigade. It provides direct support (less that provided by armywide services) to nondivisional units in its area of responsibility. When necessary, it can be augmented to assume the mission of a division support command. It may also be used to support a division task force in an independent or semi-independent operation. Direct support groups are allocated on the basis of two groups per support brigade, which provides one group per two divisions and two groups per army service area.

b. Operating elements of the direct support group in the corps support brigade (fig. 2) include two composite multifunctional maintenance battalions that accomplish the direct support maintenance and repair parts supply mission of the group. Each maintenance battalion has an organic transportation aircraft direct support company. This structure thus provides four direct support aircraft maintenance companies to support the nondivisional aircraft in a corps area.

c. In the army rear support brigade (fig. 3), the operating elements of the direct support group are the same as in the corps support brigade. However, in the army rear support brigade, four direct support aircraft maintenance companies support the aircraft in the entire army service area.

d. Staff personnel of the direct support group include an aircraft maintenance officer, who is responsible to the group commander for aircraft support within the group area of responsibility. Under staff supervision of the group logistics officer and within policies of higher headquarters, the aircraft maintenance officer prepares plans, policies, and procedures for guidance of the group aircraft support activities. He effects coordination between brigade headquarters and subordinate maintenance units and provides technical supervision of aircraft support within the group. Functions of the aircraft maintenance officer include—

(1) Advising the group commander concerning aircraft support requirements and capabilities.

(2) Recommending deployment of aircraft support units, assignment of support units, assignment of support missions, and transfer of workloads.

(3) Coordinating lateral shipment of aircraft repair parts between support units.

(4) Coordinating the issue of maintenance float aircraft and other controlled items.

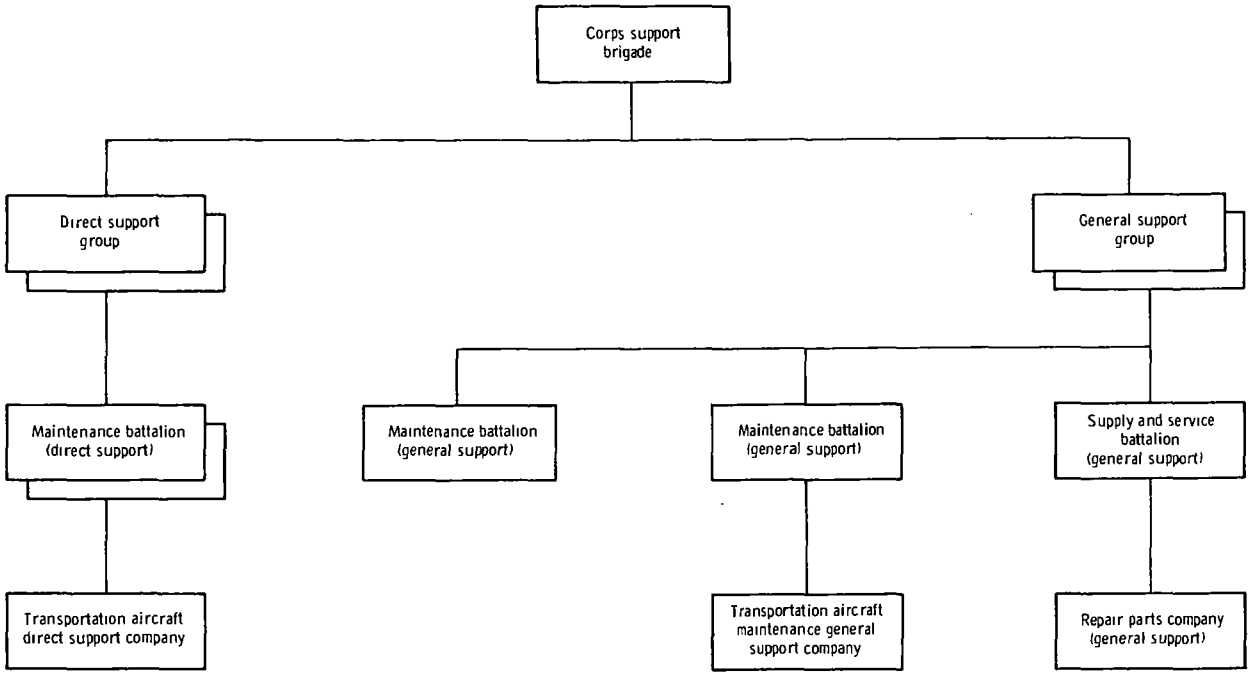

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Figure 2. Organization for support of aircraft in a four-division corps.

(5) Reviewing maintenance records and reports submitted by aircraft support companies (TM 38–750 and TM 38–750–1) and taking any action required.
(6) Inspecting subordinate aircraft maintenance support companies.
(7) Developing, implementing, and monitoring training programs.

9. General Support Group

a. The general support group is a major subordinate unit of the support brigade. It provides general support and backup direct support (less that provided by armywide services) to direct support groups and division support commands. It may also operate as a control element of a composite direct support and general support group of a support command used as a part of an independent division-size task force. Type organization allocates two general support groups per support brigade, which provides one group per two divisions and two groups per army service area.

b. The general support group in the corps support brigade contains two headquarters and headquarters detachments of a general support maintenance battalion (fig. 2). The type and number of operating units attached to these headquarters vary according to support requirements and other factors. However, a transportation aircraft maintenance general support company is attached to one of the two maintenance battalion headquarters. This company provides general support maintenance for aircraft and aerial armament and backup direct support for aircraft, aerial armament, and avionics. (General support maintenance of avionics is a responsibility of the light equipment maintenance company attached to the general support maintenance battalion.) Aircraft supply support is provided by a repair parts company of the supply and service battalion of the general support group. (See FM 29–45

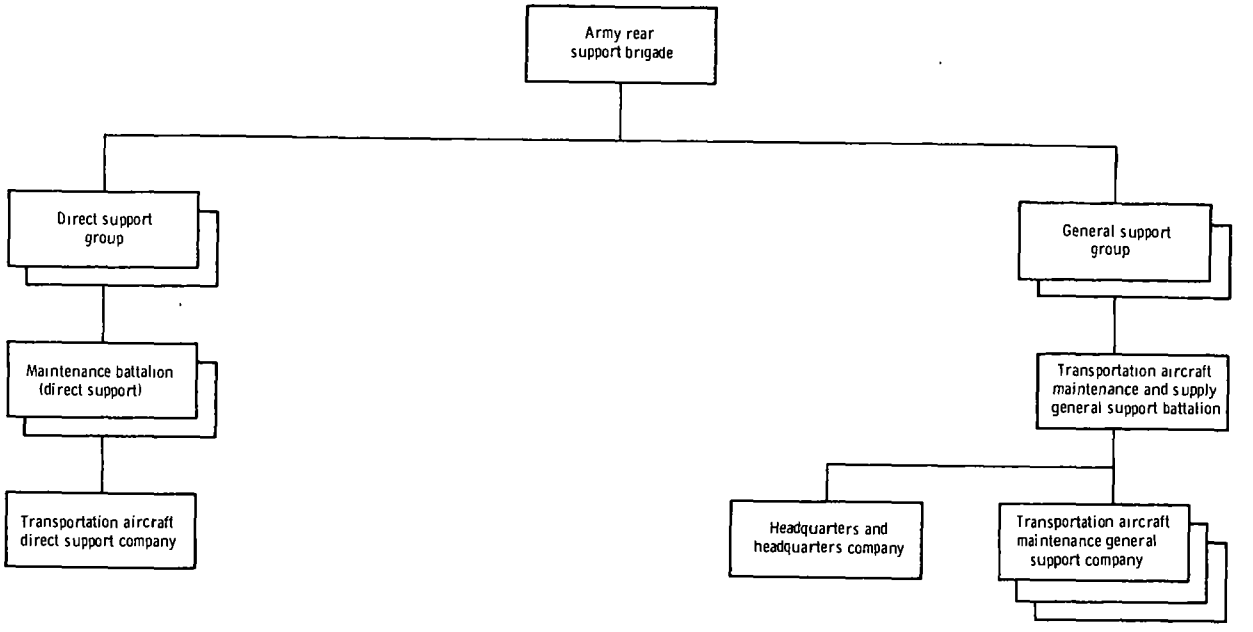

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Figure 3. Organization in the army service area for support of a three-corps (twelve-division) field army.

for a detailed discussion of the supply and service battalion.) Two transportation aircraft maintenance general support companies and two general support repair parts companies support the aircraft in a four-division corps force, plus the normal complement of non-divisional aviation units.

c. In the army rear support brigade, each general support group contains a transportation aircraft maintenance and supply general support battalion consisting of a headquarters and headquarters company, and a varying number of attached transportation aircraft maintenance general support companies. The headquarters and headquarters company performs the aircraft supply portion of the battalion mission. The aircraft maintenance general support companies (of which there are three in the type battalion) perform the maintenance mission with the exception of avionics repair, which is done by the light equipment maintenance company of the general support maintenance battalion. The type structure in the army area provides six aircraft maintenance general support companies and two headquarters and headquarters companies (fig. 3).

d. Staff personnel of the general support group include an aircraft maintenance officer. His functions with respect to the general support group essentially parallel those of his counterpart in the direct support group (para 8).

CHAPTER 3

AIRCRAFT MAINTENANCE

Section I. GENERAL

10. Maintenance Policies and Procedures

Maintenance policies and procedures for support of aircraft in the field army are in consonance with those set forth in FM 54–4. The system for implementing these policies is shown in figure 4.

11. Role of Supported Unit

a. The increasing use of Army aircraft in tactical and logistics support operations makes maintenance support of aircraft a major factor in operational planning. Other elements of a situation being favorable, the commander's decision to use aircraft in a specific operation may be finally dependent upon the ability of the maintenance and supply support organization to provide the required flyable aircraft. Hence, aircraft maintenance support must be planned and conducted with the same detail and care as is the supported operation, and complete coordination and cooperation are required between supported and supporting commanders. To be effective, aircraft maintenance must be programed and managed in a manner that permits maximum benefits from available manpower, parts, equipment, and facilities. The supported commander contributes to maintenance management by advising the support commander concerning projected maintenance requirements, by coordinating with the support commander in developing a mutually acceptable maintenance support plan, and by delivering equipment to the maintenance activity in accordance with the maintenance schedule.

b. Organizational maintenance, when properly conducted, results in fewer equipment failures and consequently fewer demands upon the supporting activity. Hence, by conscientiously performing organizational maintenance, the using unit makes an invaluable contribution to the overall mission by releasing the supporting unit to devote more effort toward its assigned functions. Organizational maintenance for Army aircraft is covered in FM 1–10.

12. Factors Affecting Aircraft Maintenance

a. Tactical Situation. The tactical situation may impose time limitations or may require displacement of supported or supporting units upon extremely short notice and thus prevent sufficient disassembly of equipment to permit repair. Under these circumstances, the equipment must be evacuated to more suitable facilities. In addition, enemy action may force a maintenance activity to devote an undue portion of time to unit or area defense, thus interfering with repair activities.

b. Physical Facilities. Unfavorable weather conditions may hinder or prevent repair unless some type of shelter and/or hardstand is provided. Further, without protection from rain, snow, high winds, and extreme heat or cold, both the quality and quantity of work accomplished can be expected to decrease. This lowered performance will be reflected in increased aircraft downtime and/or equipment failure. Trailer-mounted shop vans provide shelter for repair of small parts and assemblies such as is performed by allied shops. However, repair of large, bulky items (airframes, engines, and major components) that cannot be accommodated by the shop vans also requires shelter when adverse weather conditions exist. For this reason, any available hangars, warehouses, barns, sheds, or other suitable buildings are used for shelter. Tents and tarpaulins are used as expedients, and any available hard-

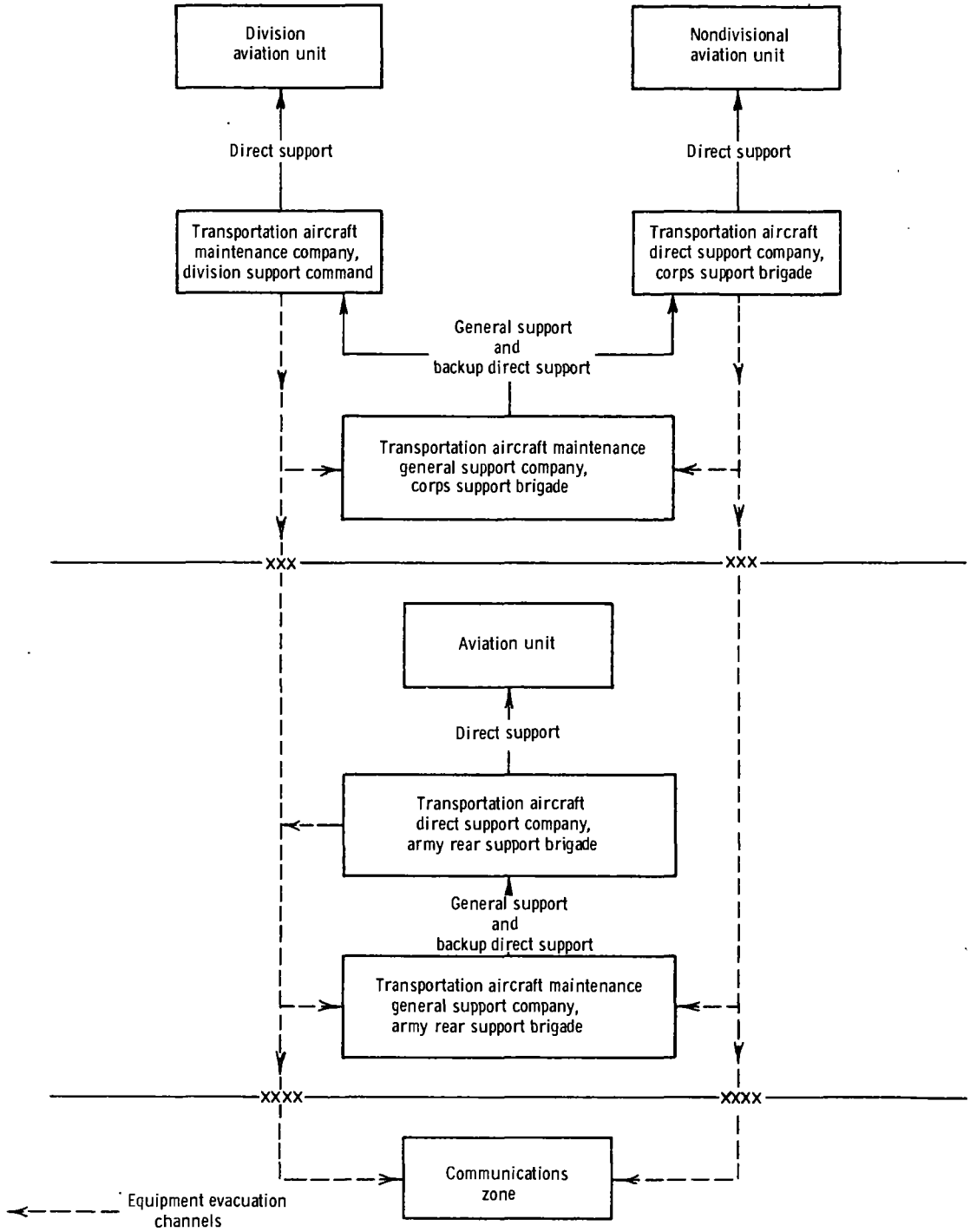

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Figure 4. Aircraft maintenance support in the field army.

stand is used for maintenance space or for storage of sensitive or high-dollar-value items. Portable heaters are used to raise temperatures of equipment and work area to permit personnel to work without gloves and restrictive clothing. When possible, provision is made for blackout of work areas to permit around-the-clock operations.

c. Environment.

(1) Unusual or extreme climatic conditions increase the amount of aircraft maintenance required to support a given number of operational flying hours. The increased requirement may result from—

(*a*) Accelerated wear or deterioration of equipment.

(*b*) Material failure due to moisture and temperature.

(*c*) Added precautionary operational and maintenance measures that would not be required in a more temperate zone.

(2) Extreme climatic conditions affect the physical or mental health of personnel. Illness may decrease the number of available effective personnel, and lowered morale may decrease individual efficiency. These adverse effects can be influenced by physical and mental conditioning of personnel, by continuing orientation of personnel concerning all phases of the operation, and by provisions for their comfort and welfare.

d. Fluctuating Workloads. In terms of available maintenance manhours, the capability of an aircraft maintenance activity remains relatively constant. However, the maintenance workload is subject to fluctuations, often from day to day. The commander of the aircraft maintenance support activity must be alert to maintenance trends and to changing situations. He can then minimize any adverse aspects by taking early action to shift workloads within his unit, to evacuate workloads beyond the capability of his activity, or to request assistance from other aircraft maintenance support activities.

13. Maintenance Planning

a. Maintenance planning for support of Army aircraft is conducted at all echelons of command. Each echelon develops the portion of the plan appropriate to its mission and its repair and supply support responsibilities. Overall coordination and staff supervision of planning is accomplished by the support command.

b. Personal contact as a means of close coordination between supporting and supported units is basic to maintenance planning. The maintenance planning conference provides an effective means of accomplishing coordination and of assuring complete interchange of essential aircraft maintenance and supply information between affected agencies. The commander of the supporting unit may request a conference when a problem exists or is anticipated that cannot be satisfactorily resolved through normal liaison or technical assistance services. Representation at a planning conference includes appropriate personnel of the supported and supporting organizations and, if required, representatives of the headquarters responsible for staff supervision of the units concerned.

c. Much of the aircraft maintenance and supply data used in planning is contained in control copies of reports and records required by TM 38–750. Since these documents are processed through command channels, the information is readily available at each major subordinate command of the field army support command. The commander may wish to supplement this information with internal reports, usually informal and submitted on a periodic basis. Examples might be an aircraft status report from supported units, a report of aircraft down for parts, or a periodic listing of critical parts. Use of this type of report is determined by the needs of the commander concerned. Such reports are kept to the minimum required for planning and control. Report control symbols are provided by the appropriate command.

14. Repair Procedures

Procedures for repair of equipment are prescribed in appropriate technical manuals of the 9-, 11-, and 55-series and other appropriate

manuals, all of which are indexed in DA Pam 310–4. (Also refer to FM 29–22 for a detailed discussion of avionics direct support.)

15. Records and Reports

a. Preparation, maintenance, and disposition of aircraft maintenance records and reports are prescribed in TM 38–750 and TM 38–750–1.

b. As discussed in paragraph 13*c*, internal reports may be required by headquarters having command and supervisory responsibilities for aircraft maintenance and supply support.

Section II. DIRECT SUPPORT MAINTENANCE

16. Organization for Direct Support Aircraft Maintenance

a. The transportation aircraft direct support company provides direct support maintenance, field recovery, and technical assistance service for nondivisional aircraft in the field army and may be employed in either the corps support brigade or the army rear support brigade without modification. When augmented, the company may also be used to support nondivisional aircraft employed in independent task force operations. Augmentation is readily provided by attachment of additional shop sections and direct support platoons as required by the mission.

b. The maintenance operating elements of the transportation aircraft direct support company consist of a shop platoon that provides a base of operations for more extensive repairs and three direct support platoons that provide on-site repair as permitted by time, the tactical situation, and the nature of maintenance required.

17. Control

The transportation aircraft direct support company is attached to the direct maintenance battalion of the direct support group. The battalion headquarters exercises control over the displacement, mission assignment, and operations of the company and provides staff supervision of its activities.

18. Employment

a. The aircraft direct support company operates on an area basis, supporting the nondivisional aircraft located within a corps area or supporting the aircraft in a specified part of the army service area. It may also be employed in support of task force aircraft in a specific mission. The company is located as near as possible to the center of aircraft density and at or adjacent to an air landing site.

b. Factors to be considered in selecting and organizing an aircraft maintenance operational site include the following:

(1) Adequacy of the area to accommodate the operations and, insofar as possible, to meet requirements for dispersion, concealment, and security.

(2) Capability of the area to be defended and, if possible, to permit coordination of defense perimeters with adjacent units.

(3) Location that permits adequate communications with supported units, battalion headquarters, and the supporting aircraft general support activity.

(4) Deployment of supported units to facilitate accomplishment of the support mission.

(5) Dispersal of functions within the area so as not to exceed an acceptable span of control.

(6) Location of related internal activities for efficiency of operations.

(7) Road nets that permit access for unit vehicles, including heavy equipment such as shop vans, supply vans, and wreckers.

(8) Availability of hardstand to be used for maintenance, parking, and open storage areas.

(9) Availability of structures that may be used for maintenance shelter, covered storage, and blackout maintenance areas.

(10) Availability of parking and run-up areas.

(11) Locations of supply and tool cribs convenient to the shop area and accessible by road and air.

19. Direct Support Repair Operations

As much aircraft repair as practicable is performed at the operating site of the aviation unit. Direct support teams which are deployed upon request of the supported unit, provide repairs and assistance within the capabilities of platoon skills, tools, and parts. Repairs that cannot be made on site are accomplished at the company base of operations or, when appropriate, evacuated to the supporting general support activity.

a. On-Site Operations.

(1) Personnel in the direct support platoon include specialists in engine, airframe, and helicopter/airplane repair. Also included are a technical inspector, a shop clerk (who processes maintenance requests and related paperwork), and a toolroom keeper. Avionics and aerial armament repairmen are not included in the direct support platoon, but are dispatched from the shop platoon as needed. Equipment includes necessary individual toolkits, semitrailer-mounted shop sets, and ground handling and servicing equipment. Vehicular equipment provides for mobile and off-the-ground limited storage of sensitive and high-dollar-value repair parts and for transport of repair parts, supplies, and unit equipment. A light set and a generator permit work during darkness. Personnel of the direct support platoon are usually deployed as teams made up of the skills and equipment required to accomplish the repair.

(2) Maintenance and inspection records and related paperwork are maintained in accordance with procedures outlined in TM 38–750. Completed maintenance requests (DA Form 2407) are returned to the company production control office for processing and disposition.

(3) Although the direct support platoon carries only those repair parts essential to the on-site repair mission, in an emergency the platoon may issue parts to the supported unit. The direct support platoon obtains stock replenishment from the supply platoon of its parent company.

b. Company Base of Operations. The aircraft direct support company establishes a maintenance site, or base of operation, at or adjacent to an air landing site as centrally located as possible within its area of responsibility. From this base the on-site teams move out upon request of the supported unit. The remainder of the company operates at this location, where it accomplishes direct support maintenance that is beyond the capability of the on-site teams or that is too extensive to be undertaken in a foward area.

(1) This element of the maintenance company performs the functions of command, maintenance management, and quality control and contains the shops, equipment, and repair technicians to accomplish direct support maintenance for aircraft, aerial armament, and avionics equipment. Organic equipment includes semitrailer- and trailer-mounted shops, which contain the allied shop equipment that permits more extensive repair than can be accomplished on site. Two organic utility helicopters operate from the maintenance base to move on-site repair teams and to make emergency delivery of repair parts to direct support platoons and supported units. The utility helicopter also provides aerial lift for recovery or evacuation of nonflyable aircraft.

(2) The company receives its mission assignment from the direct support maintenance battalion to which it is attached and works under the control and supervision of the battalion. The company receives its workload from supported nondivisional aviation units. Maintenance beyond the capability or the authorized level of repair of the company is evacuated by the supporting general support activity.

(3) The supply element of the aircraft direct support company provides repair parts to the company shop operation, the direct support platoons, and the supported aviation units.

(4) Maintenance records and reports are kept in accordance with TM 38–750. Reports are submitted through maintenance battalion headquarters.

20. Adjustment of Maintenance Resources to Workload

The overriding consideration in direct support maintenance is prompt repair of equipment and return to the user. Prompt repair and return can be accomplished only by adequate coordination and proper planning (para 13), by proper scheduling of maintenance into the shops, by correlating maintenance and repair parts support, and by efficient internal maintenance management. However, despite the best planning and management, the unpredictability of many types of malfunctions result in fluctuating workloads. Consequently, there will be times when maintenance resources of one maintenance company are not fully employed while the maintenance workload of another company exceeds its capabilities, thereby resulting in an excessive backlog of work and attendant delay in return of equipment to the user. The company commander promptly advises the battalion commander when he detects signs of a developing workload maladjustment. The maintenance battalion commander can then inform the support group commander, who will direct necessary shifting of workloads and/or maintenance units.

21. Maintenance Float

A maintenance float of aircraft is a quantity maintained to provide replacement for unserviceable aircraft that cannot be made serviceable in time to meet the user's requirements for operational aircraft. Maintenance float items are not substituted for end item supply. A float aircraft is issued only when the aircraft being replaced is repairable and when provision is made for its expeditious repair and return to maintenance float stock. Since float aircraft constitute a vital part of the field army resources, failure to observe this provision may result in serious depletion of this capability. Maintenance float aircraft are carried in direct support units in corps and field army. Issue of float aircraft by the supporting activity is based on policies and procedures established by the field army.

22. Cannibalization

a. Cannibalization consists of removing serviceable parts from an unserviceable piece of equipment and installing them on another unserviceable piece of equipment, thereby making it serviceable. Cannibalization is an emergency measure for obtaining parts to return equipment to use when the need for the equipment justifies and when the repair parts are not readily available through other sources. AR 750–1500–8 governs the cannibalization of Army aircraft.

b. The commander of a unit to which aircraft are assigned approves cannibalization of those parts that are organizational level responsibility for removal. At direct support level, the commander of the aircraft direct support company approves cannibalization within policies established by higher headquarters.

23. Maintenance Overflow

Direct support maintenance that exceeds the capability of the aircraft direct support company and that cannot be accomplished through transferring workloads or shifting direct support units is transferred to the supporting general support activity.

Section III. GENERAL SUPPORT MAINTENANCE

24. Organization for General Support Maintenance

a. The transportation aircraft maintenance general support company provides general support and backup direct support maintenance for Army aircraft and aerial weapons and direct support maintenance for avionics equipment in the field army. (General support

maintenance for avionics equipment is a responsibility of the light equipment maintenance company of the general support maintenance battalion.) The aircraft maintenance general support company supports divisional and nondivisional Army aircraft and is employed in both the corps support brigade and the army rear support brigade. The company may also be used as required to support an independent task force employed in a specific mission.

b. The maintenance operating elements of the aircraft maintenance general support company consist of a shop platoon that repairs airframes, engines, aircraft components, and avionics and aerial weapons equipment and of an aircraft repair platoon that repairs fixed- and rotary-wing aircraft.

25. Control

The transportation aircraft maintenance general support company is attached to a battalion headquarters that exercises control over company displacement, mission assignment, and operations and provides staff supervision of its activities.

a. In the corps support brigade, the aircraft maintenance general support company is attached to a general support maintenance battalion of the general support group.

b. In the army rear support brigade, the aircraft maintenance general support company is attached to a transportation aircraft maintenance and supply battalion.

26. Employment

a. The transportation aircraft maintenance general support company is usually employed on an area basis. However, it may also be employed in support of a specific task force operation. The company should be located on an airfield or heliport that provides ready access to supported activities.

b. In the corps support brigade, two aircraft maintenance general support companies support the divisional and nondivisional direct support aircraft maintenance units in a corps area. An aircraft maintenance general support company is attached to one of the general support maintenance battalions in each of the two general support groups.

c. In the army rear support brigade, six transportation aircraft maintenance general support companies support the direct support aircraft units in the army service area and provide backup support for general support companies in the corps support brigade. Three aircraft general support companies are attached to the transportation aircraft maintenance and supply general support battalion in each of the two general support groups.

d. Factors considered in selecting and organizing an operational site are generally the same as those discussed in paragraph 18*b* for direct support units.

27. General Support Repair Operations

a. The aircraft maintenance general support company receives its mission assignment from the battalion to which it is attached and works under the control and supervision of the battalion. The company receives its workload from aircraft direct support companies in the division support command and the direct support group. Maintenance beyond the capability or authorized level of repair of the company is evacuated to the theater logistical command.

b. Equipment received on job order from the direct support unit (for example, equipment which requires modification) is repaired for return to the user. Disposition of other repaired items is as directed by the battalion supply control section in accordance with policies and procedures established by higher headquarters. Disposition action may include return to stock at general support level, issue to an aircraft maintenance direct support unit to meet an outstanding request, or retention as shop stock by the repairing unit.

28. Request for General Support Maintenance

Request by supported units for assistance by the aircraft maintenance general support company and transfer of work will be in accordance with policies and procedures established by higher headquarters.

29. Evacuation of Unserviceable Items

Evacuation of unserviceable items from forward units to the rear will be in accordance

with policies and procedures established by higher headquarters. Army aircraft are evacuated through maintenance channels (fig. 4). Evacuation of unserviceable equipment to the theater logistical command is coordinated with, and directed by, the inventory control center of the field army support command.

30. Disposition of Repaired Items

Repair of equipment at direct support level is for return to the user. Disposition of items repaired at general support level is as discussed in paragraph 27*b*.

CHAPTER 4

AIRCRAFT SUPPLY

31. General

a. Basically, aircraft supply support in the field army is a staged system wherein supplies are initially received by a depot in the theater army logistical command and then shipped to general support supply activities for issue to operating elements of the aircraft maintenance support system. Throughput of aircraft repair parts is limited to the movement of emergency supplies and heavy or bulky items such as aircraft engines, transmissions, and similar types of items which can be readily identified and controlled.

b. The direct support unit is customer oriented, providing the supported aviation unit with retail supply support for expendable supplies and for repair parts that are normally fast moving and have a predictable consumption rate. The general support supply activity is commodity oriented, providing wholesale supply of all items that are stocked by the direct support elements. In addition, the general support supply unit stocks bulky or heavy-tonnage items, repair parts that normally have a low usage factor, and items that are controlled or in critically short supply. In the army service area, the general support supply unit also holds a portion of the field army reserve stocks.

32. Interrelationship of Supply and Maintenance

Effective repair support for aircraft in the field army is directly and particularly dependent upon adequate and responsive aircraft supply support. The parts required for a repair operation must be immediately available, especially at the direct support level where equipment must be repaired for return to user with the least possible delay. Components, assemblies, and parts repaired by the general support activity for return to stock constitute a major source of supply in support of the maintenance mission. At the same time, repair of items for return to stock is contingent upon the rapid return of unserviceables to the general support activity. Thus, the interdependence of maintenance and supply is readily apparent, as well as is the requirement for control, coordination, and management of the two activities.

33. Supply Management and Control

a. The organization of the field army support command includes an inventory control center, which exercises inventory control over all field army stocks, including aircraft and aircraft supplies. Responsibilities of the inventory control center include computation of requirements, direction of procurement, commodity management and distribution, and direction of disposal. Assigned personnel include commodity specialists, who advise and assist the inventory control center commander in all aspects of the activity operations. The center uses electronic equipment to process and transmit supply and stock control information and to maintain a record of all supply assets and their locations within the field army. Duplicate records are maintained at an alternate location in event the center is destroyed or becomes inoperable because of equipment failure. Detailed coverage of the inventory control center is contained in FM 29–10.

b. The headquarters of the support brigade and of the support group are not in the routine repair parts supply channels; however, they exercise supply management of regulated and controlled items and approve the issue of maintenance float aircraft in accordance with policies established by the army commander as implemented by the commander of the field army support command. Operating battalions within the group exercise stock control for

items that constitute field army stocks. These include supplies carried by units of direct support groups and items in maintenance floats of direct support units. Except for controlled items, aviation supplies carried by direct support units are considered issued in the same sense as are supplies delivered to division support commands.

(1) In the direct support group, supply personnel in the aircraft direct support company keep stock records on the status, location, and quantities of repair parts stocked by the company. The commander of the direct support maintenance battalion provides command supervision over the supply activities of the aircraft direct support company and takes such measures as are necessary to assure that the operation conforms to prescribed procedures.

(2) In the general support group of the corps support brigade, the repair parts company of the supply and service battalion provides repair parts support for aircraft, aerial armament, and avionics equipment. Consequently, stock control of these items is accomplished by the supply control section of the supply and service battalion. Detailed coverage of the supply and service battalion is contained in FM 29–45.

(3) In the general support group of the army rear support brigade, the headquarters and headquarters company of the transportation aircraft maintenance and supply general support battalion provides repair parts general support for aircraft and aerial armament. Therefore, the stock control section of this company provides the control of these items. As in the corps support brigade, repair parts in support of avionics equipment are stocked and controlled by the repair parts company of the supply and service battalion.

c. Within the general support group, the materiel management section (operating under the staff supervision of the group logistics officer) coordinates with the general support supply activity to facilitate maintenance and supply working relationships. Its activities in this area include—

(1) In accordance with policies established by higher command, developing and implementing procedures for scheduling and assigning the repair of unserviceable items reported by the supply activity.

(2) Within prescribed policies and procedures, securing maintenance priorities and advising the supply activity of them.

(3) Maintaining appropriate records and providing required reports to the field army support command inventory control center concerning the status of unserviceable economically repairable end items, components, and assemblies that are a portion of the field army stocks. Reports include the quantities of items on hand for repair, scheduled completion dates, items awaiting disposition instructions, and items repaired since the last report (including their disposition).

34. Supply Support Structure
(figs. 5 and 6)

a. The aviation unit receives aircraft supply support from its supporting aircraft direct support company.

b. In the corps brigade, the aircraft direct support company receives supply support from the functionalized repair parts company of the supporting general support supply and service battalion.

c. In the army rear support brigade, the aircraft direct support company receives supply support for aircraft and aerial armament from the headquarters and headquarters company of the aircraft maintenance and supply general support battalion. (This battalion also provides backup supply support to the repair parts company of the corps support brigade.) Supply support for avionics equipment in the army rear support brigade is provided by the repair parts company of the supporting general support supply and service battalion.

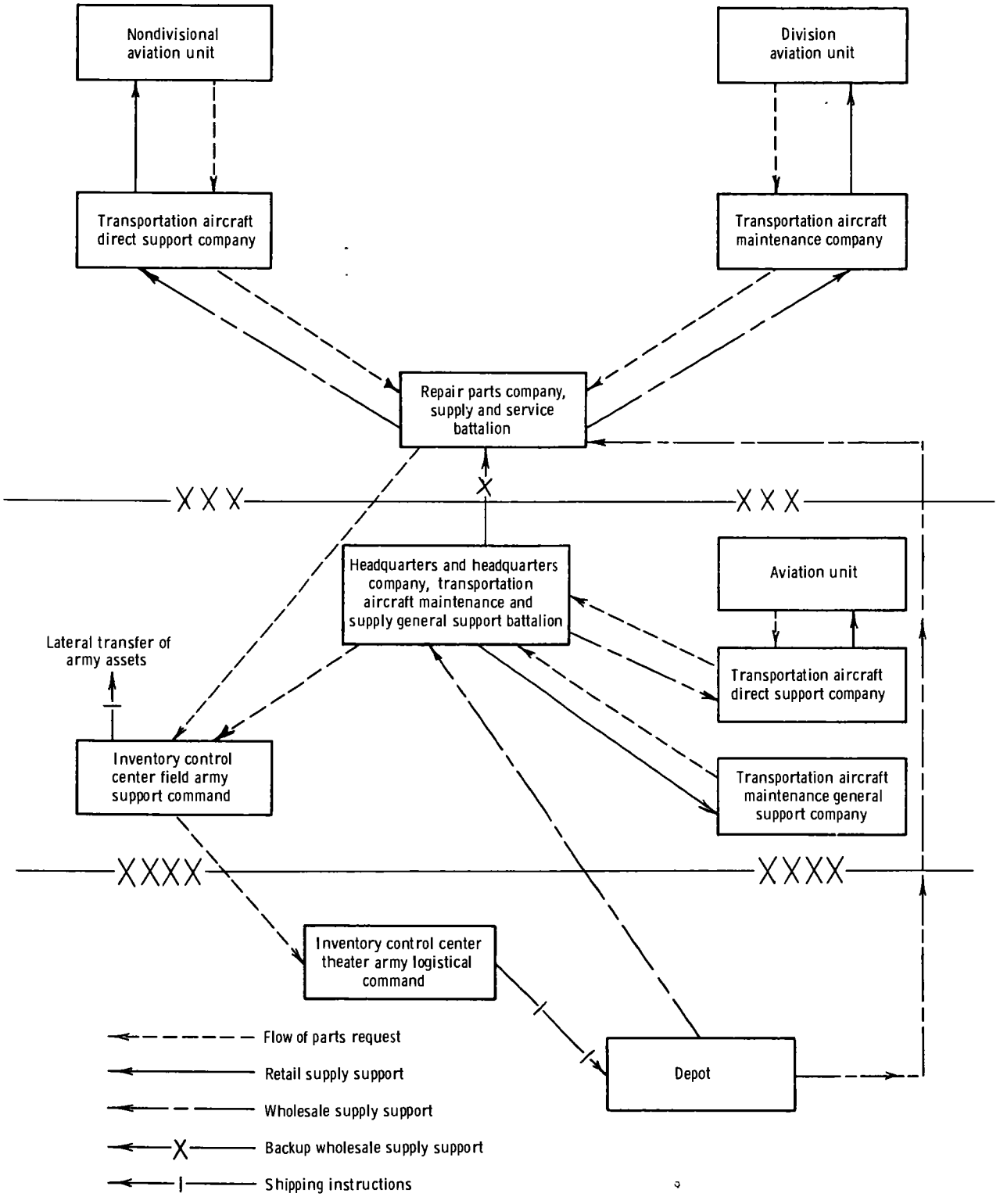

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Figure 5. Aircraft and aerial armament repair parts supply channels.

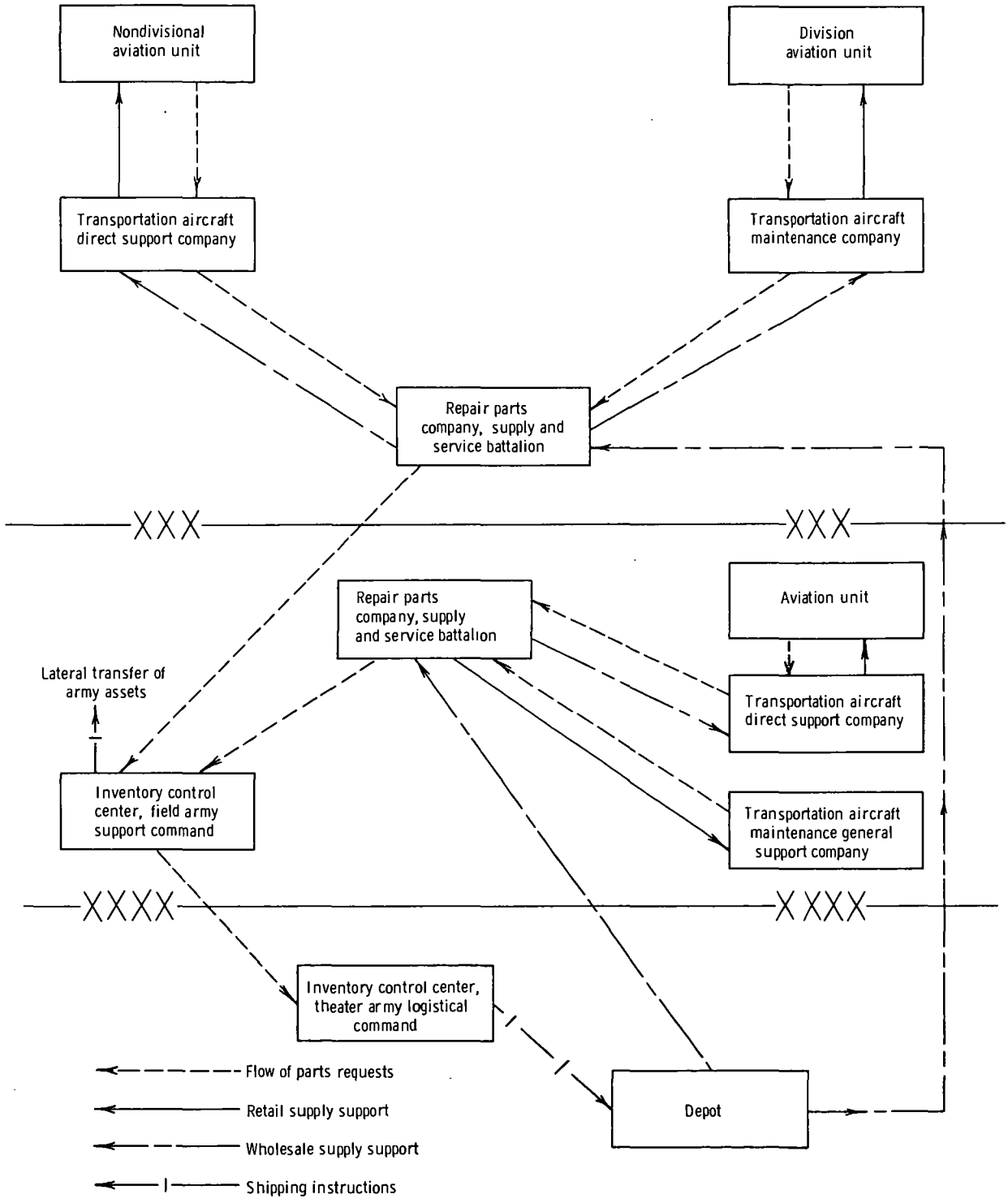

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Figure 6. Avionics repair parts supply channels.

35. Stockage

Stockage is influenced by aircraft densities in the area of employment, by mobility requirements, and by the support mission. Authorized stockage lists are originally based upon allowances prescribed by appropriate supply and –P technical manuals and are subsequently adjusted in consonance with recorded demand data.

a. The aircraft direct support company stocks repair parts to support its maintenance mission and to provide supply support for aircraft, avionics, and aerial armament in supported units. The company maintains a stockage list to support its operations, plus the required safety level and order and shipping time.

b. The headquarters and headquarters company, of the aircraft maintenance and supply general support battalion stocks repair parts for aircraft and aerial armament and provides wholesale support for the aircraft direct support company in the army rear support brigade, backup wholesale support for the general support repair parts company in the corps support brigade, and supply support for the maintenance mission of attached transportation aircraft maintenance general support companies. The headquarters and headquarters company maintain a stockage list to support its mission, plus the required safety level and order and shipping time. It is staffed to support an authorized stockage list of approximately 8,000 aircraft line items and 2,000 aerial armament items.

c. The general support repair parts company stocks repair parts for aircraft, aerial armament, and avionics equipment in support of the direct support aircraft maintenance company in the corps support brigade. In the army rear support brigade, the repair parts company provides the aircraft direct support company with wholesale repair parts support for avionics equipment. Detailed coverage of the repair parts company is contained in FM 29–45.

d. The transportation aircraft general support company maintains only a shop stock sufficient to support its own maintenance mission.

36. Repair Parts Requests

a. Channels for requesting and shipping aircraft and aerial armament repair parts are shown in figure 5. Requesting channels and repair parts flow for avionics parts are shown in figure 6. Since the support brigade and the group manage controlled and critical items of supply, they maintain a record of all transactions involving these items. To permit centralized management of armywide assets, battalion stock control sections forward a record of all transactions to the field army support command inventory control center.

b. Procedures for requesting repair parts are prescribed in AR 711–16. Normal supply management data are written on and/or punched into the requesting document, DA Form 2765, and sent by transceiver to the next higher supply source. When the aircraft maintenance company does not possess key-punch equipment, the battalion stock control section provides the company with prepunched and preprinted Forms 2765 for each item on the authorized stockage list. Transceiver service is provided by attached signal service teams. When transceiver equipment is not available, the request is carried by messenger or aircraft.

c. Replenishment requests are submitted in accordance with a schedule established by the headquarters of the next higher supply source. Requests for parts whose lack results in deadlined equipment (EDP) may be submitted at any time. However, if submitted at other than scheduled transceiver time, EDP requests are transmitted by wire or telephone.

d. When an EDP request cannot be filled by the battalion supply activity, the battalion stock supply control section forwards the request to the next higher headquarters having automatic data processing equipment (ADPE). Until automatic data processing equipment becomes available at support brigade or group level, unfilled EDP requests are forwarded to the field army support command inventory center. The inventory control center then directs issue from other assets within the support command supply activities or, if the item is not available within army assets, forwards the request to the theater army logistical command inventory control center.

37. Direct Exchange

Direct exchange is an accelerated supply transaction in which serviceable repair parts are provided to supported units in exchange

for similar unserviceable parts. Direct exchange is made on an item-for-item basis and is designed to expedite the supply of fast-moving repair parts. (See AR 711–16 for procedures.) Repair parts authorized for direct exchange are designated by the field army support command commander. Unserviceable economically repairable items received by the supporting unit are inspected, repaired, and returned to the supply system with minimum delay.

38. Salvage and Reclamation

a. When an aircraft is damaged beyond economical repair or has crashed under circumstances in which recovery is impossible or infeasible, serviceable parts and components (including usable portions of the airframe) are removed from the wreckage for return to stock. If recovery of the aircraft is not accomplished, the remainder of the wreckage is destroyed in place; otherwise, the aircraft carcass is evacuated to the nearest general support collection, classification, and salvage company for disposition.

b. The supporting general support activity determines when an aircraft is not economically repairable, based upon policies and procedures established by the commander of the field army support command. (In peacetime operations, the provisions of AR 750–713 govern.)

c. Removal of serviceable parts is accomplished by authorized supporting maintenance activities. Such removal is systematic and complete and is performed only under the supervision of aircraft technical inspectors who, using AR 750–1500–8 and applicable technical manuals as a guide, determine the serviceability of each part removed. (Under no circumstances are individual repairmen permitted to remove parts for their own use in completing a repair job.)

d. In event of delay by the accident investigating board in releasing the aircraft for disposition, the aircraft maintenance activity secures permission of the board to preserve engines and other components and parts that are subject to rapid deterioration.

CHAPTER 5

AIRCRAFT MAINTENANCE UNITS

Section I. TRANSPORTATION AIRCRAFT MAINTENANCE AND SUPPLY GENERAL SUPPORT BATTALION

39. Mission, Organization, and Assignment

a. Mission. The mission of the transportation aircraft maintenance and supply general support battalion is to provide general support maintenance and supply and backup direct support maintenance for Army aircraft and aerial armament.

b. Organization. The aircraft maintenance and supply general support battalion consists of a headquarters and headquarters company, and a variable number of transportation aircraft maintenance general support companies. The type organization includes three aircraft general support companies.

c. Assignment. The aircraft maintenance and supply general support battalion is assigned to the field army support command and attached to a general support group of the army rear support brigade for command, control, and supervision.

40. Employment

The aircraft maintenance and supply general support battalion in the army service area is a major subordinate element of the general support group. The battalion is a managing and controlling agency responsible for providing general support maintenance and supply for Army aircraft and aerial armament.

Section II. HEADQUARTERS AND HEADQUARTERS COMPANY, TRANSPORTATION AIRCRAFT MAINTENANCE AND SUPPLY GENERAL SUPPORT BATTALION

41. Mission, Organization, and Assignment

a. Mission. The mission of the headquarters and headquarters company of the transportation aircraft maintenance and supply general support battalion is to—

(1) Provide command, control, staff planning, and administrative and technical supervision of attached transportation aircraft maintenance general support companies.

(2) Provide repair parts general support for aircraft and aerial armament in the field army.

b. Organization. The headquarters and headquarters company consists of a battalion headquarters and a headquarters company (fig. 7). The headquarters company includes a company headquarters, an administration section, an operations section, a communications section, a battalion maintenance and supply section, a stock control section, and an aircraft supply platoon. The aircraft supply platoon contains a platoon headquarters, a requisition and stock record section, and a storage and issue section.

c. Assignment. The headquarters and headquarters company is organic to the aircraft maintenance and supply general support battalion.

42. Capabilities, Functions, and Limitations

a. Capabilities. At full strength, the headquarters and headquarters company is capable of—

(1) Providing command, control, staff planning, and technical and adminis-

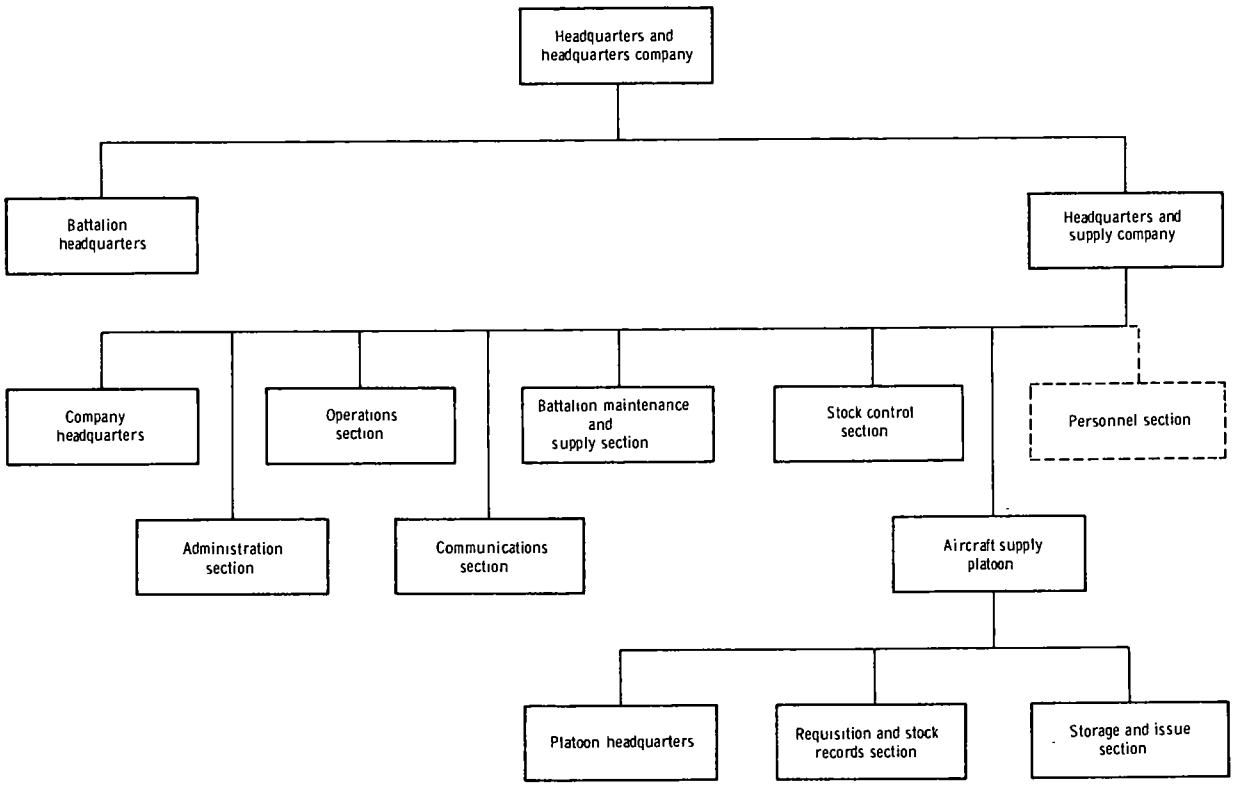

Figure 7. Headquarters and headquarters company, transportation aircraft maintenance and supply general support battalion.

trative supervision for two to six aircraft general support companies.

(2) Providing wholesale repair parts support for aircraft and aerial armament systems.

(3) Receiving, storing, and issuing repair parts in support of an authorized stockage list of approximately 8,000 aircraft line items and 2,000 aerial armament line items.

(4) Providing stock control over repair parts for subordinate and supported units.

(5) Maintaining a portion of the field army reserve stocks of aerial armament repair parts.

(6) Establishing operating procedures for and supervising and assisting subordinate units in administration, supply, maintenance, communications, and training.

(7) Assigning and controlling the maintenance workloads of battalion operating elements.

(8) Engaging in effective, coordinated defenese of the unit's area of installation.

b. Functions.

(1) *Battalion headquarters.* Battalion headquarters provides command and staff supervision to insure timely and effective accomplishment of the tech-

nical mission of the battalion. It furnishes the structure and capacity to advise and assist the commander in all phases of command of the battalion. Staff members assist in administration, control, and direction of the technical effort. The battalion staff includes an executive officer (who also serves as the information officer), a battalion supply officer (S4), an adjutant (S1), and an operations officer (S3). The battalion commander, executive officer, and operations officer are qualified aircraft maintenance officers.

(2) *Company headquarters.* The company headquarters provides the command and headquarters support for the headquarters and supply company. This includes unit administration, mess, security, training, and discipline.

(3) *Administration section.* The administration section performs normal administrative functions for the battalion, other than personnel records keeping. It initiates personnel actions, orders, morning reports, and other correspondence as required. The personnel staff noncommissioned officer serves as the essential liaison link between unit clerks of attached companies and the personnel services company of the support brigade. (The personnel services company processes personnel administrative actions, including classification, personal affairs, maintenance of personnel records, pay actions, and personnel accounting.)

(4) *Operations section.* The operations section plans for and provides overall guidance, supervision, and control of battalion tactical and technical operations. This section also plans, directs, and supervises intelligence, training, and inspection activities within the battalion.

(5) *Communications section.* The communications section provides the communications center for the battalion and establishes, maintains, operates, and controls the battalion radio net and switchboard. Sufficient personnel are authorized within the section to operate the commuications system around the clock.

(6) *Battalion maintenance and supply section.* The battalion maintenance and supply section serves as a coordinating agency between battalion units and provides staff planning and guidance for battalion organizational maintenance and supply activities.

(7) *Stock control section.* The stock control section provides a centralized facility for controlling repair parts stockage of subordinate and supported units. In addition to maintaining normal stock records, the section maintains a record of serviceable repairable items undergoing maintenance by attached aircraft maintenance companies and advises the materiel management section of the general support group concerning the status of these repairables. Disposition of repaired items is in accordance with policies and procedures established by higher headquarters. The stock control section also conducts lateral search for repair parts and directs lateral shipment of parts between subordinate units as required to accomplish the maintenance mission. Additionally, the stock control section receives and processes requests from the aircraft supply platoon for parts not in stock. These requests are forwarded to the field army support command inventory control center, where a record is maintained of all supply assets and their locations within the field army. The inventory control center then directs shipment from available resources or places a request upon the theater army logistical command as appropriate.

(8) *Aircraft supply platoon.* The aircraft supply platoon consists of a platoon headquarters, a requisition and stock

record section, and a storage and issue section. The platoon headquarters provides command, control, and supervision of platoon activities. The requisition and stock record section processes requests from supported direct support aircraft maintenance units, from general support repair parts companies (when backup wholesale repair parts support is required), and from the operating elements of the aircraft maintenance and supply battalion. The section issues shipping instructions and prepares documentation for items to be shipped. When an item is not in stock, the section places a request upon the stock control section. The storage and issue section receives, inspects, stores, maintains in storage, and issues all repair parts handled by the platoon.

c. Limitations. The headquarters and headquarters company is dependent upon one of the attached aircraft maintenance companies for vehicle and aircraft organizational maintenance and upon the personnel services company (support brigade) for processing personnel administrative actions.

43. Command and Staff Responsibilities

a. In addition to responsibilities normal to unit command and administration, the battalion commander is responsible for technical supervision and direction of battalion operating elements. Specific responsibilities of the battalion commander in this respect include—

(1) Informing and advising the general support group commander and staff concerning all significant aspects of the battalion maintenance and supply support mission.

(2) Within established group policies—

(*a*) Preparing necessary plans and directives to assure accomplishment of the battalion tactical and technical mission.

(*b*) Assigning support missions to and transferring workloads between battalion operating elements and recommending to the group commander the transfer, realinement, and reinforcement of aircraft support units.

(3) Assuring that subordinate units are kept informed of all elements of the situation that affect their operations.

(4) Assuring adequate liaison and coordination between the maintenance and supply battalion headquarters, subordinate units, and higher headquarters.

(5) Reviewing and forwarding maintenance data generated from reporting and management procedures prescribed in TM 38–750.

b. The battalion operations officer exercises staff supervision over planning and directs and controls battalion training and operations. His primary staff responsibilities include—

(1) Keeping the battalion commander informed concerning all aspects of the battalion maintenance and supply support mission.

(2) Recommending plans and policies for accomplishment of the maintenance mission.

(2) Recommending the assignment of support missions and workloads within the battalion.

(4) Scheduling and conducting battalion level aircraft maintenance planning conferences.

(5) Assuring submission by operating units of data and reports as prescribed in TM 38–750.

(6) Coordinating with the battalion supply officer in determining disposition of repaired items.

c. In addition to general supply responsibilities, the battalion supply officer provides staff planning, supervision, and control of supply support activities of the battalion. Because of the close interrelationship between repair parts support and maintenance, he occupies a key position within the aircraft support system and must maintain continuing liaison with the battalion operations officer and the battalion maintenance officer in order to assure adequate and timely repair parts support of the battalion maintenance mission. In addition, the supply officer represents the maintenance battalion commander in coordinating with higher

headquarters to assure rapid and effective disposition of repaired items and in maintaining liaison with supported direct support units to assure that they receive adequate wholesale repair parts support.

d. The battalion aircraft maintenance officer assists the operations officer by supervising, monitoring, and coordinating the repair activities of attached aircraft maintenance companies. Primary supervisory responsibilities of the maintenance officer include—

(1) Making recommendations concerning and planning for the scheduling of maintenance into the operating units and for meeting established maintenance priorities.

(2) Advising the battalion commander concerning the status of maintenance and its predicted impact upon the assignment of support missions, realinement of units, and transfer of workloads.

(3) Informing the operations officer concerning anticipated work stoppages due to parts shortages.

(4) Maintaining a consolidated record of the status of components and assemblies in maintenance shops for repair and promptly reporting repaired items to the operations officer for disposition instructions.

(5) Compiling maintenance data and maintaining records and charts as required for maintenance planning and control.

(6) Supervising the preparation and submission of reports required by TM 38–750 and other applicable publications or directives.

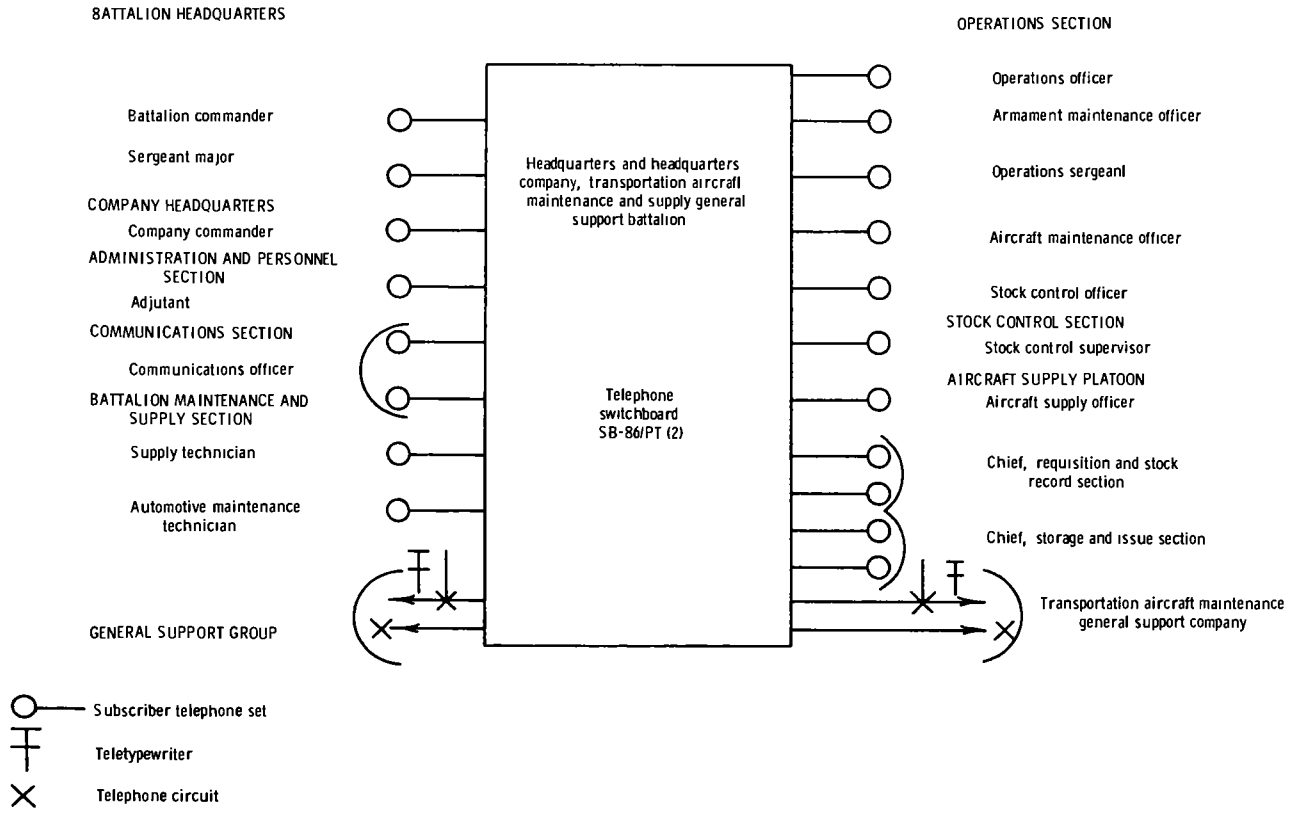

Figure 8. Wire net, headquarters and headquarters company, transportation aircraft maintenance and supply general support battalion.

44. Communications

The headquarters and headquarters company of the aircraft maintenance and supply general support battalion contains wire and radio communications to support battalion operations and to link the headquarters with battalion operating elements.

a. Wire Communications.

(1) A telephone switchboard is provided for local telephone service and for communications with higher, subordinate, and adjacent units. The wire personnel assigned to the communications section install, operate, and maintain this switchboard and the telephone lines to the elements of the battalion headquarters.

(2) The telephone switchboard and teletypewriter sets are connected to the nearest army area signal center, where they can be switched to any other unit connected to the army area communications system. Figure 8 shows a type wire diagram for the headquarters and headquarters company.

b. Radio Communications Equipment. The battalion communications section is equipped with a radioteletypewriter set AN/GRC–46 that serves as the battalion radio net control station. It is also used for transmission of messages, instructions, operational orders, and supply and maintenance information to attached aircraft maintenance companies. A radio set AN/VRC–47, mounted in a ¼-ton vehicle, is provided the battalion commander. Radio set AN/GRR–5 provides air warning service.

Section III. TRANSPORTATION AIRCRAFT MAINTENANCE GENERAL SUPPORT COMPANY

45. Mission, Organization, and Assignment

a. Mission. The mission of the transportation aircraft maintenance general support company is to provide general support maintenance for aircraft and aircraft armament and backup direct support maintenance for aircraft, avionics, and aircraft armament for divisional and nondivisional direct support aviation maintenance units in the field army.

b. Organization. The transportation aircraft maintenance general support company consists of a company headquarters, a shop supply section, a shop platoon, an aircraft repair platoon, and a service and equipment section. The shop platoon includes a platoon headquarters, an airframe and engine section, an aircraft component repair section, and an avionics and armament section. The aircraft repair platoon includes a platoon headquarters, a fixed wing section, and a rotary wing section. The company may be augmented to increase its mission capabilities. The organization of the company is shown in figure 9.

c. Assignment. The aircraft maintenance general support company is assigned to a field army support command, or a corps support brigade. In the corps support brigade, it is attached to a general support maintenance battalion. In the army rear support brigade, it is attached to a transportation aircraft maintenance and supply general support battalion.

46. Capabilities, Functions, and Limitations

a. Capabilities. At full strength, the aircraft maintenance general support company provides approximately 33,000 man-hours per month of repair support for Army aircraft and is capable of the following:

(1) Providing aircraft and aerial weapons general support maintenance for divisional and nondivisional aviation units in the corps support brigade. Two aircraft maintenance general support companies provide approximately 80 percent of the required support. Overflow maintenance is evacuated to the army service area or to the communications zone. (General support repair of avionics is a responsibility of the light equipment maintenance company of the general support maintenance battalion.)

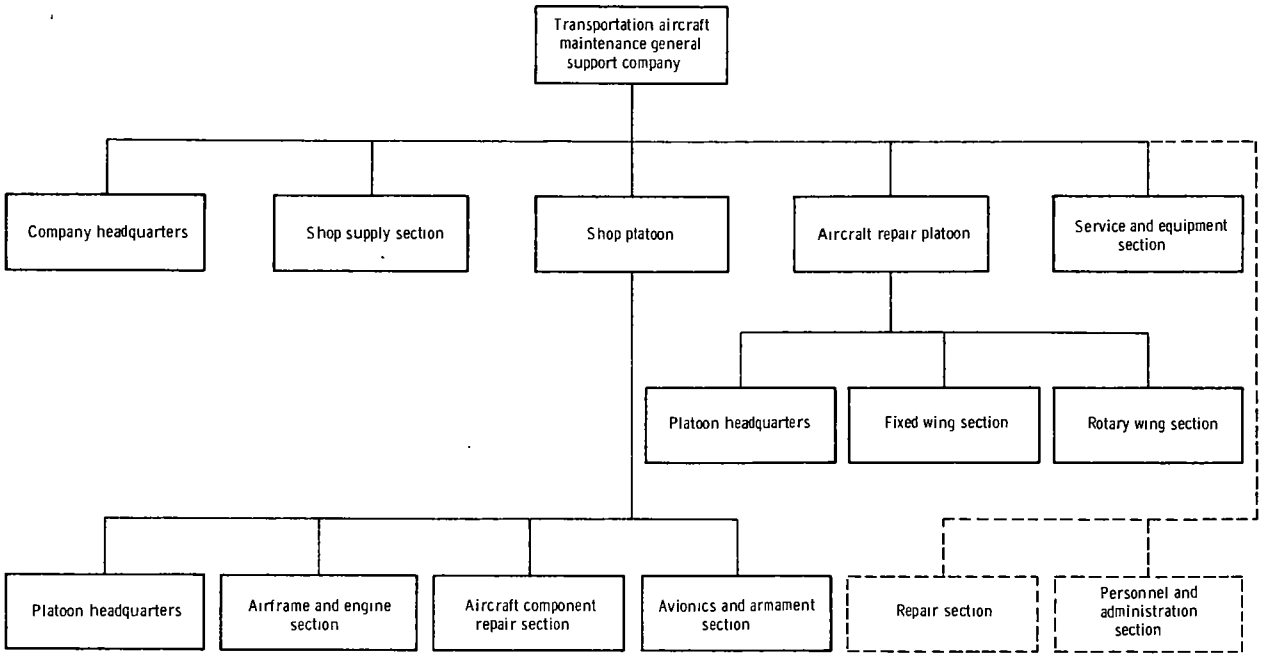

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Figure 9. Transportation aircraft maintenance general support company.

(2) Providing backup direct support for aircraft, avionics, and aerial weapons repair activities of aircraft direct support units in the corps support brigade.

(3) Providing backup direct support for aircraft direct support companies in the army rear support brigade, general support for aviation units in the army rear support brigade, and backup general support for aircraft general support companies in the corps support brigade.

(4) Requesting, receiving, storing, and issuing avionics, aerial weapons, and aircraft repair parts required for support of its shop mission.

(5) Engaging in effective, coordinated defense of the unit's area or installation.

b. Functions.

(1) *Company headquarters.* Company headquarters provides normal command and technical control and supervision for the company. The company headquarters also provides unit overhead personnel for administration, food service, and unit supply. The company is dependent upon the personnel services company for administration of personnel records.

(2) *Shop supply section.* The shop supply section requests, receives, stores, and controls repair parts for support of the company maintenance mission and issues the parts to the operating sections of the company.

(*a*) The section is capable of supporting an authorized stockage list of approximately 4,000 aircraft line items and 1,000 aerial armament and avionics line items.

(*b*) When the aircraft maintenance general support company is employed in the corps area, repair parts resupply is requested from the general support supply and service battalion and issue is made by the repair parts company. When the aircraft maintenance general support company is employed in the army service area, repair parts resupply is requested from the headquarters and headquarters company of the aircraft maintenance and supply general support battalion. Issue of parts to the maintenance company is then made by the aircraft supply platoon of the headquarters and headquarters company.

(3) *Shop platoon.* The shop platoon contains the allied shops, which repair airframes, engines, components, and systems. In addition, the platoon provides repairmen to make up teams to provide on-site technical assistance to supported aircraft maintenance units.

(a) *Platoon headquarters.* The shop platoon headquarters provides direct technical supervision of the repair activities of its subordinate sections. Responsibilities include maintenance of records and reports, coordination of repair parts support, and production control for subordinate sections.

(*b*) *Airframe and engine section.* The airframe and engine section repairs airframes, engines, and engine components of Army aircraft.

(*c*) *Aircraft component repair section.* The aircraft component repair section repairs rotors, propellers, power trains, electrical systems, instruments, and hydraulic systems. This section also has a limited capability for fabrication of repair parts and certain special tools.

(*d*) *Avionics and armament section.* The avionics and armament section performs general support maintenance on aerial weapons and inspection and limited repair of avionics equipment. Avionics repair is generally limited to testing of equipment and subsequent removal and replacement of modules and components. Avionics equipment requiring extensive general support repair is evacuated to the general support light equipment maintenance company of the general support maintenance battalion.

(4) *Aircraft repair platoon.* The aircraft repair platoon removes, inspects, reinstalls or replaces, and adjusts parts, accessories, and components of aircraft. Additionally, the platoon provides repairmen to make up teams to provide technical assistance to supported maintenance units.

(*a*) *Platoon headquarters.* The platoon headquarters supervises the functions of subordinate sections to include realinement of personnel and tools to meet changing workloads. Responsibilities include maintenance of records and reports, coordination of repair parts support, and production control for subordinate sections.

(*b*) *Fixed wing section.* The fixed wing section removes and replaces components of fixed wing aircraft. Components are routed to the shop platoon for repair and, if not subsequently reinstalled on the aircraft, are reported for disposition instructions. This section may receive serviceable replacement components from either the shop platoon or the shop supply section.

(*c*) *Rotary wing section.* The rotary wing section performs the same functions for rotary wing aircraft as are performed by the fixed wing section for fixed wing aircraft.

(5) *Service and equipment section.* The service and equipment section maintains the trailer- and semitrailer-

mounted shop sets, materials handling equipment, generators, and wheeled vehicles organic to the company. The section operates and maintains the organic utility helicopters and provides aerial transport of repair personnel and parts. It operates and maintains the fuel-dispensing tank trucks and petroleum storage facilities. Under supervision of the aircraft maintenance officer or his representative, pilots of this section operate the organic helicopter in aerial evacuation of nonflyable aircraft.

(6) *Augmentation.* When the workload or other factors justify, the aircraft maintenance general support company may be augmented by a repair section to increase the unit's capability for repair of airframes, engines, components, and aircraft systems.

c. *Limitations.*

(1) Aerial evacuation of disabled aircraft by the aircraft maintenance general support company is restricted to the lift capability of the company's organic aircraft. When lift requirements exceed this capability, assistance is requested from the supported unit or from a heavy lift helicopter company. Assistance by the supported unit is normally arranged by direct contact between the units concerned. Assistance by heavy lift helicopter is requested through command channels.

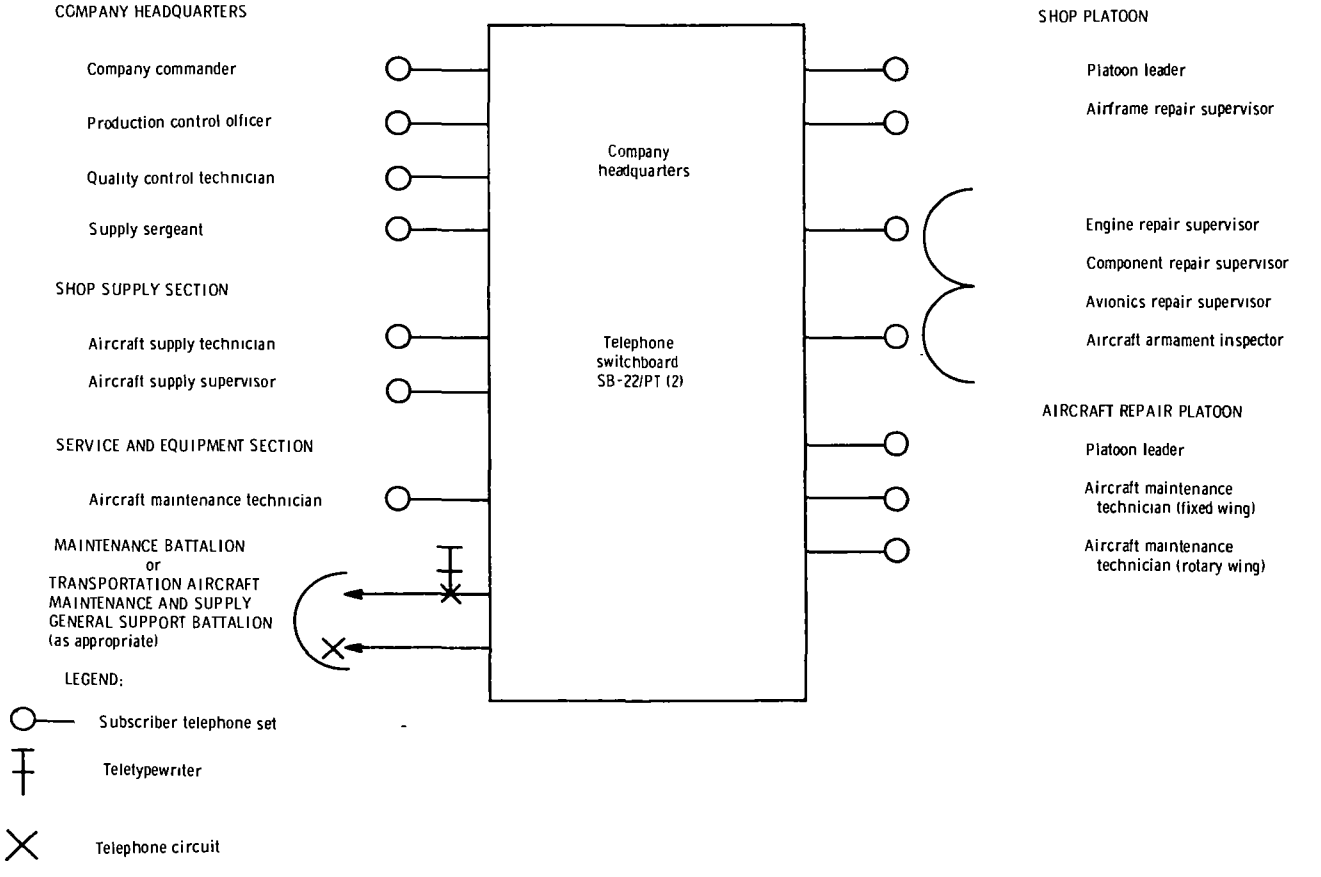

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Figure 10. Wire diagram, transportation aircraft maintenance general support company.

(2) Size and weight of mobile maintenance shops and supply vans limit unit off-road trafficability.
(3) Inadequacy of blackout facilities may limit the type of maintenance that can be performed during darkness, generally restricting repairs to those that can be completed inside the mobile shop vans.

47. Communications

The aircraft maintenance general support company operates a wire communications net and a radio net on a 24-hour basis.

a. Wire Net (fig. 10). The company is authorized equipment to provide wire communication between all elements of the company. By connecting the company switchboard to the battalion switchboard or to the nearest army area communications system, telephone calls may be switched to any unit in the communications system.

b. Radio Net. A radioteletypewriter set AN/GRC–46 permits the aircraft maintenance general support company to exchange repair and supply information and instructions with supported aircraft direct support companies and with higher headquarters. Radio set AN/VRC–47 enables the company commander to communicate with supported units and higher headquarters and also provides an additional receiver for monitoring purposes. Set AN/GRR–5 is used to monitor the air warning net.

Section IV. TRANSPORTATION AIRCRAFT DIRECT SUPPORT COMPANY

48. Mission, Organization, and Assignment

a. Mission. The mission of the transportation aircraft direct support company is to provide direct support repair, supply support, and field recovery service for aircraft, avionics, and aerial weapons organic to nondivisional aviation units in the field army.

b. Organization. The aircraft direct support company (fig. 11) contains a company headquarters, a supply platoon, a shop platoon, and three direct support platoons. The supply platoon contains a platoon headquarters, a storage and issue section, and a shop supply section. The shop platoon contains a platoon headquarters, a shop section, and a service and equipment section.

c. Assignment. The aircraft direct support company is assigned to the field army support command. It is normally attached to a direct support maintenance battalion in the direct support group.

49. Capabilities, Functions, and Limitations

a. Capabilities. At full strength, the aircraft direct support company is capable of the following:

(1) Providing approximately 21,600 manhours per month of direct support aircraft maintenance.
(2) Furnishing aircraft repair and supply direct support including provision of—
  (*a*) Aircraft maintenance, related repair parts supply, and recovery support to nondivisional aircraft in corps and army.
  (*b*) Avionics and aerial weapons maintenance and related repair parts supply support.
  (*c*) On-site maintenance for aircraft of three nondivisional aviation units.
  (*d*) A 2-day stockage level of repair parts for aircraft, avionics, and aerial weapons. Stocks may exceed this level by varying amounts, depending upon the characteristics of the item.
(3) When augmented (fig. 11), accomplishing additional workloads appropriate to the type of augmentation.
(4) Engaging in effective, coordinated defense of the unit's area or installation.

b. Functions.

(1) *Company headquarters.* The company headquarters provides command and administration of the unit. Production and quality control personnel furnish technical control and supervision of repair operations to assure mission accomplishment. The company headquarters also contains personnel to

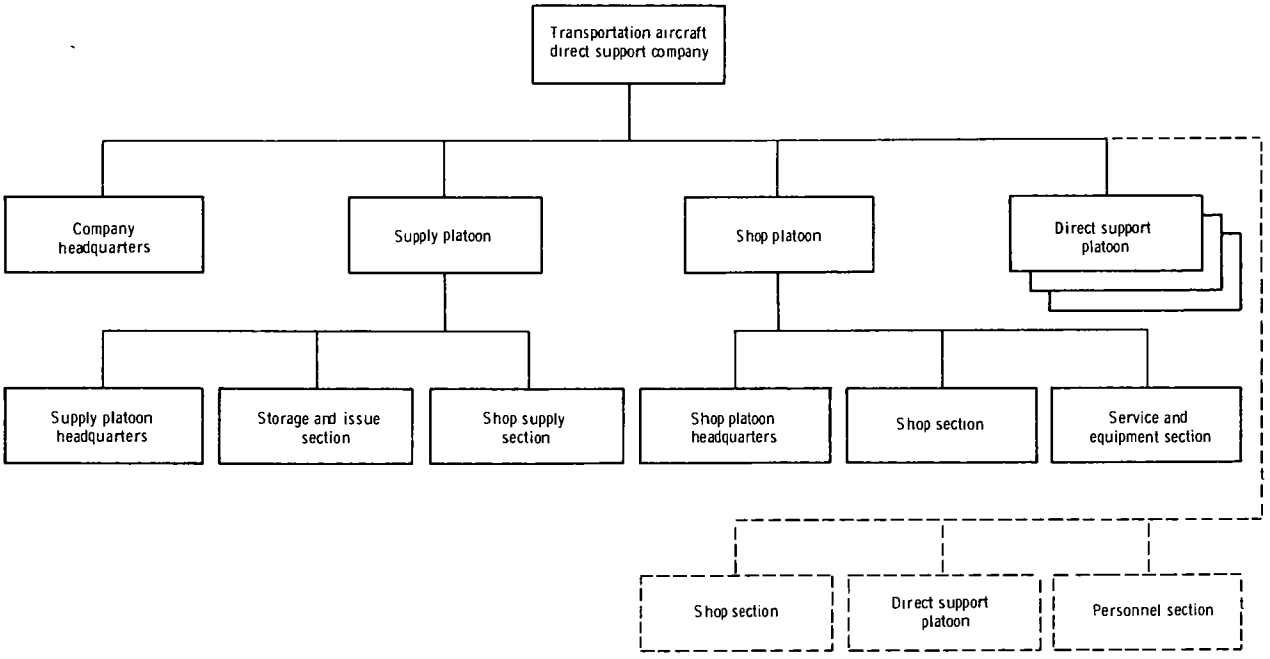

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Figure 11. Transportation aircraft direct support company.

perform organizational maintenance on unit signal items and small arms. The personnel service company of the support brigade performs personnel administration for the aircraft direct support company.

(2) *Supply platoon.* The supply platoon performs all administrative and supervisory functions of the maintenance supply support portion of the company mission.

(*a*) *Supply platoon headquarters.* The supply platoon headquarters maintains stock records on the status, location, and quantities of repair parts stocked by the company. It receives and processes supply requests submitted by supported aircraft units and directs shipment of requested items. When the aircraft direct support company is employed in the corps area, the supply platoon obtains its stock replenishment from the aircraft repair parts company of the general support supply and service battalion. In the army service area, it obtains stock replenishment from the headquarters and headquarters company of the general support aircraft maintenance and supply general support battalion.

(*b*) *Storage and issue section.* The storage and issue section receives, stores, and issues to supported activities, mission - related expendable supplies and repair parts for aircraft, avionics, and aerial weapons systems.

(*c*) *Shop supply section.* The shop supply section serves as an expediting agency by drawing supplies from the storage and issue section for use by the shop platoon and the direct support platoons.

(3) *Shop platoon.* The shop platoon is normally situated at the maintenance company base of operations on or adjacent to an airfield where aircraft requiring repair may be accommodated. In addition to the shop platoon, the maintenance base also contains the administrative and the aircraft supply activities required to support both the on-site maintenance operations and the more complex repairs required of the shop platoon. With these facilities and with the specialized vehicle-mounted shop vans, the shop platoon is enabled to make repairs whose complexity or whose requirements for equipment disassembly or for parts, tools, and/or specialized equipment do not permit accomplishment in the more forward areas.

(*a*) *Platoon headquarters.* Personnel of the platoon headquarters plan the internal operations, assign work to shop personnel, maintain a record of status of repair jobs, maintain forms and records (TM 38–750), and otherwise provide planning, management, and supervision for the shop operations. Supervisory personnel include aircraft, avionics, and aerial weapons repair technicians. Component repair inspectors assure that repairs meet established standards.

(*b*) *Shop section.* The shop section repairs aircraft and components and avionics and aerial weapons equipment. It also provides backup to the direct support platoons operating on site.

(*c*) *Service and equipment section.* The service and equipment section maintains organic shop sets, wheeled vehicles, generators, and materials handling equipment, and operates and maintains the fuel-servicing tank trucks and petroleum storage facilities. It requisitions, receives, stores, and issues parts for organizational repair of the equipment. Personnel of the service and equipment section operate and maintain the two utility helicopters used for transport of contact teams from the shop platoon and for emergency aerial delivery of repair parts. Under supervision of the aircraft maintenance officer or his representative, section pilots operate the organic helicopter in aerial evacuation of nonflyable aircraft.

(4) *Direct support platoons.* The aircraft direct support company contains three direct support platoons. Each platoon can provide on-site maintenance and technical assistance to an aviation unit of 12–25 aircraft. The extent of repairs permitted is limited by the equipment authorized the platoon and by the degree of disassembly permitted by the tactical situation or other limiting factors. Since the direct support platoon does not contain avionics or aerial weapons repairmen, assistance is obtained from the shop section for work of this nature.

(5) *Augmentation.* When the workload or the situation requires, the aircraft direct support company may be authorized augmentation as follows—

(*a*) *Shop section.* One shop section augmentation provides the company with approximately 2,000 additional maintenance man-hours per month.

(*b*) *Direct support platoon.* Augmentation by one direct support platoon provides on-site maintenance for an additional aviation unit of 12–25 aircraft. Authorization of this platoon normally requires augmentation of one to two shop sections also.

c. Limitations.

(1) The maintenance capability of the direct support company is reduced when the company is working under blackout conditions. Although the mobile shop vans can be blacked out, these vans do not accommodate repairs other than those that can be

completed in a relatively restricted area.

(2) The size and weight of certain essential equipment, such as the mobile shop vans, significantly limit the off-road trafficability of the direct support company.

(3) In accomplishing aerial evacuation of nonflyable aircraft, the transportation aircraft direct support company is subject to the same limitations that affect the transportation aircraft maintenance general support company (para 46*c*(1)). As with the general support company, assistance may be obtained from the supported unit or from the heavy lift helicopter company.

50. Communications

The aircraft direct support company is authorized both wire and radio communications to support its operations and to link it with supported units and higher headquarters. A communications chief controls the radio and wire nets and assists the radioteletypewriter operators, who operate the company headquarters radios on a 24-hour basis. Two switchboard operators are provided for 24-hour operation of the company switchboard.

a. Wire Communications. The company wire net provides internal communication and, through the army area communications system, wire communications with higher headquarters and with supporting and supported units (fig. 12).

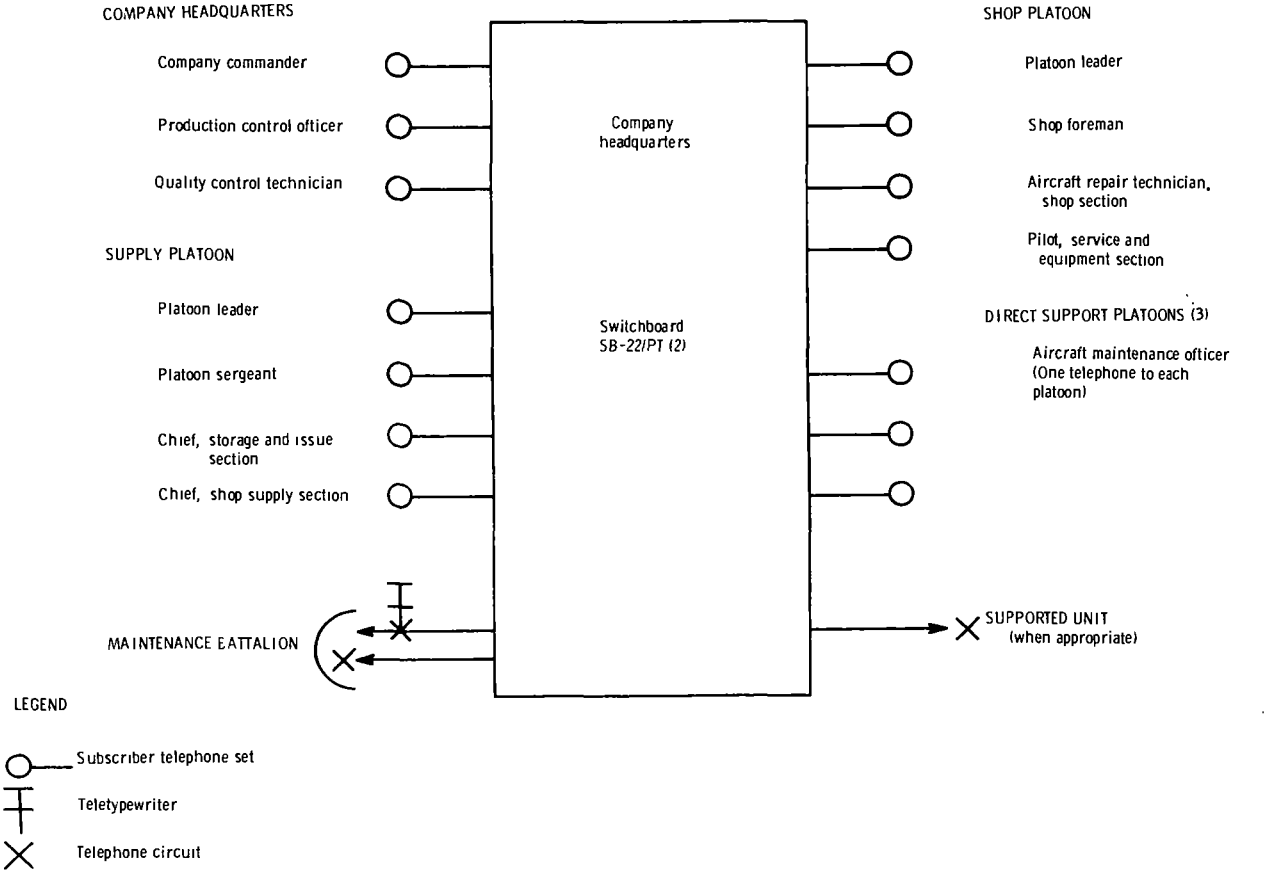

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Figure 12. Wire diagram, transportation aircraft direct support company.

b. Radio Communications. The radio net of the direct support company (fig. 13) includes a radioteletypewriter set AN/GRC–46, a radio set AN/VRC–47, and six radio sets AN/VRC–46. In addition, radio set AN/GRR–5 is provided for monitoring the air warning net.

(1) Company headquarters contains the radioteletypewriter, which is mounted in the ¾-ton truck. This net permits communication by the direct support company with supporting and supported aviation units. It is used primarily to receive and transmit technical data and reports.

(2) The radio set AN/VRC–46, mounted in the ¼-ton truck, is authorized command and supervisory personnel as shown in figure 13.

(3) Radio set AN/VRC–47 is mounted in the ¾-ton truck in company headquarters. This set receives and transmits operational messages between the maintenance company and its operating elements. The additional receiver in this set is used for monitoring the net of the maintenance battalion to which the company is attached.

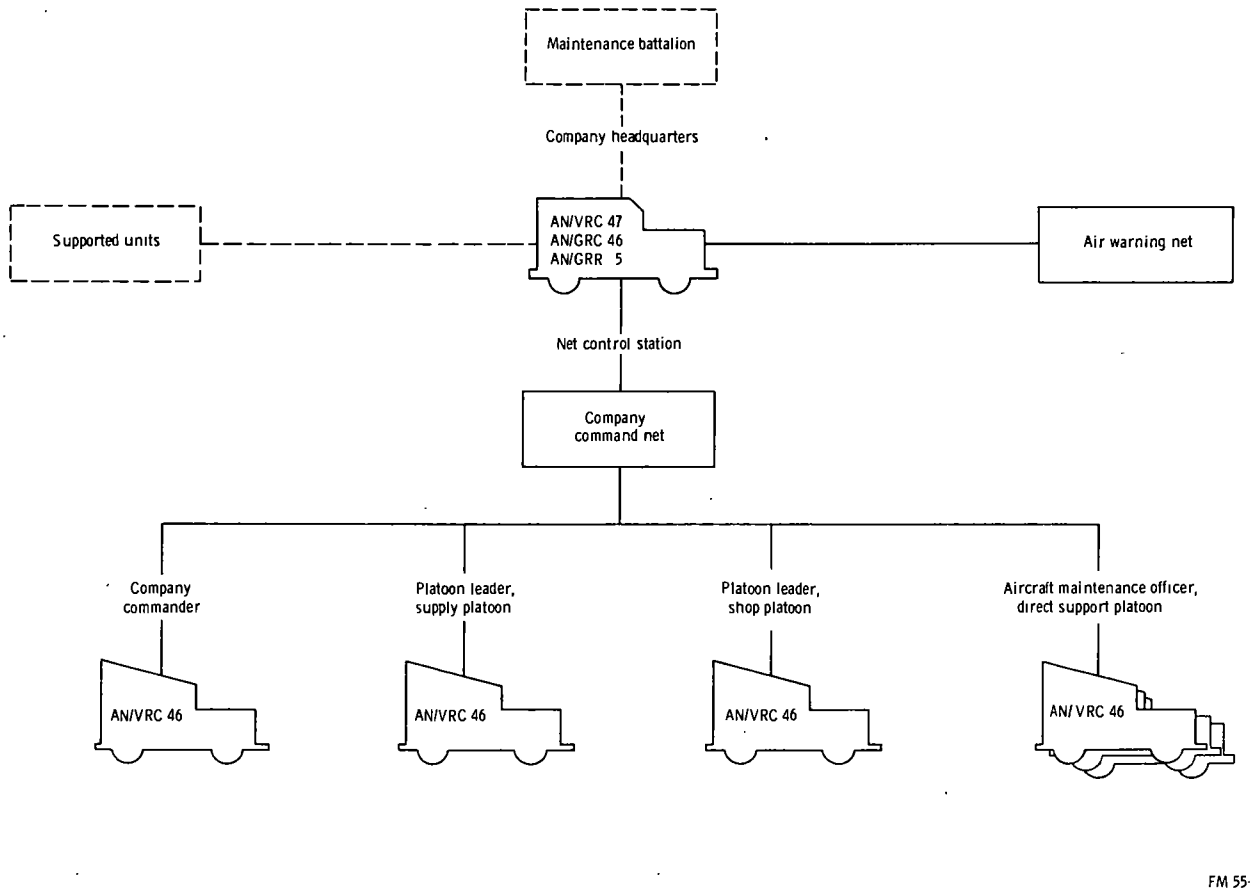

Figure 13. Radio net, transportation aircraft direct support company.

APPENDIX

REFERENCES

1. Army Regulations

AR 11–14	Materiel Readiness
AR 320–5	Dictionary of United States Army Terms
AR 320–50	Authorized Abbreviations and Brevity Codes
AR 711–16	Installation Stock Control and Supply Procedures
AR 711–25	Stockage or Supplies and Maintenance of Authorized Stockage Lists
AR 725–50	Issue of Supplies and Equipment; Requisitioning, Receipt, and Issue System
AR 735–3	Receipt, Shipment, and Issue of Property
AR 735–35	Supply Procedures for TOE Units, Organization, and non-TOE Activities
AR 750–1	Maintenance Concepts
AR 750–5	Organization, Policies, and Responsibilities for Maintenance Operations
AR 750–22	Technical Assistance Program
AR 750 713	Repair and Overhaul of Army Aircraft
AR 750–1500–8	Use of Serviceable Parts from Unserviceable Aircraft or Aircraft Components

2. Field Manuals

FM 1–10	Army Aviation Organizational Aircraft Maintenance and Supply
FM 3–12	Operational Aspects of Radiological Defense
FM 10–8	Air Delivery of Supplies and Equipment in the Field Army
FM 11–21	Tactical Signal Communications Systems, Army Corps, and Division
FM 11–86	Combat Area Signal Battalion, Army
FM 21–40	Small Unit Procedures in Chemical, Biological, and Radiological (CBR) Operations.
FM 24–16	Signal Orders, Records, and Reports
FM 29–3	Direct Support Supply and Service in the Field Army
FM 29–10	Supply Management in the Field Army
FM 29–22	Maintenance Operations in the Field Army
FM 29–45	General Support Supply and Service in the Field Army
FM 29–30	Maintenance Battalion, Division Support Command (when published)
FM 54–3	The Field Army Support Command
FM 54–4	The Support Brigade
FM 61–100	The Division
FM 100–5	Field Service Regulations—Operations
FM 100–10	Field Service Regulations—Administration
FM 101–5	Staff Officers' Field Manual—Staff Organization and Procedure
FM 101–10	Staff Officers' Field Manual—Organizational, Technical, and Logistical Data

3. Technical Manuals

TM 3–210	Fallout Prediction
TM 3–220	Chemical, Biological, and Radiological (CBR) Decontamination
TM 9-series	Ordnance (as applicable)
TM 11-series	Communications-Electronics (as applicable)
TM 38–750	Army Equipment Record Procedures
TM 38–750–1	Maintenance Management—Field Command Procedures
TM 55-series	Transportation (as applicable)

4. Department of the Army Pamphlets

DA Pam 310-series	Military Publications Indexes

5. Tables of Organization and Equipment

TOE 55–66F	Headquarters and Headquarters Company, Transportation Aircraft Maintenance and Supply General Support Battalion
TOE 55–457E	Transportation Aircraft Direct Support Company
TOE 55–458E	Transportation Aircraft Maintenance General Support Company

6. DA Forms

DA Form 2407	Maintenance Request
DA Form 2765	Request for Issue or Turn-In

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NG: State AG (3); units—same as Active Army except allowance is one copy to each unit.
USAR: Units—same as Active Army except allowance is one copy to each unit.
For explanation of abbreviations used, see AR 320–50.

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